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ABSTRACT

This annotated bibliography and resource list is the fourth guide in a series that constitutes a handbook on educational computing for teachers and administrators. Citations include the title, author, publisher, copyright date, current price, and publisher's address. Research and journal articles are listed under the following topic areas: general, teacher inservice, students, networks, facility planning, word processors, science, mathematics, fine arts, social studies, and language arts/reading. Other resources are organized according to the following categories: (1) filmstrips, slides, audiotapes, and videotapes; (2) student texts and reference books; (3) books and pamphlets; (4) directories, guides, and indexes; (5) organizations; (6) resource centers; and (7) periodicals. Topics covered in the resources listed include computer literacy, computer assisted instruction, computer programming, programming languages, computers in education, computer graphics, purchasing microcomputers, and computer software. (LMM)

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Computer Technology in Curriculum and Instruction Handbook

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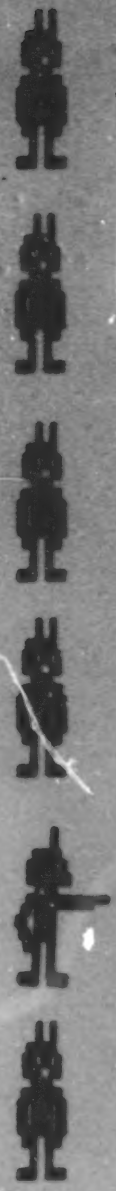

Resources

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Assistant Superintendent
Division of Instructional
Programs and Services

Jean Wieman
Director
Programs and Learning Resources
and
Task Force Section Director

COMPUTER TECHNOLOGY IN CURRICULUM AND INSTRUCTION TASK FORCE

Sue Collins and Elden Egbers - Co-chairs

Ken Bumgarner
Lillian Cady
Les Francis
Bill Riblar
Joan Newman

"Computer figure" courtesy of Leo B. Christopherson
author of ANDROID NIM

DR. FRANK B. BROUILLET, SUPERINTENDENT OF PUBLIC INSTRUCTION

Reprinted, December 1983

RESOURCES

Prepared by

Sue Collins, Les Francis

Shirley Dallas and Cheryl Lemke

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HOW TO OBTAIN MATERIALS LISTED IN THIS "RESOURCE GUIDE":

Every effort has been made to provide you with current bibliographic information including title, author, publisher, copyright date, current price and publisher's address. Most items in this guide can be borrowed directly from your local library or through interlibrary loan services. Those items with and ED number can be reviewed and usually copied at the ERIC center in your area, commonly a university library, or may be ordered directly. Most books listed can be purchased or ordered through your local bookstore or educational computer center.

RESEARCH AND JOURNAL ARTICLES

GENERAL

Action Research Roundup: What Three Studies Show About Computer-based Learning.
Classroom Computer News; v2 n2 p18-20 Nov/Dec 1981.

Reviews microcomputer research concerning problem-solving skills, higher achievement for high achievers, and increasing math scores.

Bracey, Gerald W.
Computers in Education: What the Research Shows.
Electronic Learning; v2 n3 p51-54 Nov/Dec 1982.

"In general students learn more, retain more or learn the same amount faster using computers... Unfortunately, no studies have been completed yet that tell us why that may be... Achievement gains aside, students often find computers more 'human'--more patient, less critical--than humans."

Craft, C.O.
Research on the Use of Computer-Assisted Instruction.
Man Society Technology; p26-27 April, 1982.

Reviews recent research studies related to computer assisted instruction (CAI). The studies concerned program effectiveness, teaching of psychomotor skills, tool availability, and factors affecting the adoption of CAI. (CT)

Collis, Betty.
Questions for Research on Microcomputers as Instructional Media.
Educational Technology; p43-44 March, 1983.

Noting that little research on microcomputers examines the cognitive impact, various research questions, originally suggested by Salomon in 1970 concerning instructional media, are restated focusing on microcomputers.

Forman, Denyse
Search of the Literature.
The Computing Teacher; p37-51 Jan 1982.

Reviews the research on Computer Assisted Instruction and its effect on achievement, its cost effectiveness, impediments to its implementation, and future trends and recommendations.

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Kearsley, G., Hunter, B., and Seidel, R. J.
Two Decades of Computer Based Instruction Projects: What Have We Learned?
T.H.E. Journal; v10 n3 pp90-94 January, 1983.
T.H.E. Journal; v10 n4 pp90-100 February, 1983.

Two part series offering an overview of Computer Based Instruction study projects and development projects. The evidence of these studies points to the fact that computers can be used to make instruction more effective and efficient in a variety of ways.

Lawton, Johnny and Gerschner, Vera T.
A review of the Literature on Attitudes Towards Computers and Computerised Instruction.
Journal of Research and Development in Education; v16 n1 pp50-55 1982.

This paper includes discussions on computerized instruction, computer literacy, the obstacles in furthering computer literacy and suggestions for expanding computer literacy.

Spencer, Mima and Baskin, Linda
Classroom Computers: Do They Make a Difference?
Classroom Computer News; v2 n2 p12-15 Nov/Dec 1981.

Addresses the question of whether students in school learn more and have better academic success because they are using computers. Research results to date answer yes, but the authors point out that the research reveals more questions than answers.

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TEACHER INSERVICE

Research

ED 208868

Beck, John J., Jr.
Computer Literacy for Elementary and Secondary Teachers.
5 Nov 80; p17.

A discussion on the impact of the information explosion on society provides the context for this paper's examination of procedures for designing the first state of a systematic plan to incorporate computer technologies in elementary and secondary schools. Based on the rationale that a computer literate faculty must be available to make decisions on effective computer use, the paper discusses the roles that teachers and computers will play in educating students in the 21st century. Citing the need to match instructional and learner objectives, a paradigm for training teachers to be computer literate is recommended as the initial step in achieving that goal. Categories outlined for this initial introduction include information systems, information collection and retrieval, communications with a computer, computers in the marketplace, and computers in education. Suggested activities for generating additional competencies would include programs on: (1) the automatic control of processes, (2) the concept of input-process-output, (3) coding systems, (4) preparation of input and interpretation of output, (5) using computer program packages, and (6) hardware and software in context. Sixteen references are cited. (MER)

ED 183181

Dennis, J. Richard
Teacher Education in the Use of Computers. The Illinois Series on Educational Application of Computers, No. 1.
Illinois Univ., Urbana. Dept. of Secondary Education. 79; p23.

Two model programs have been developed for preservice and inservice training of teachers in the instructional applications of computers. The preservice model features a background in computer science, foundations of instructional computing using a total school view and content specific view, a task-centered practicum in instructional computing, and practice teaching. The inservice training model consists of three stages: (1) initial literacy, (2) implementation, and (3) maintenance or growth. Curriculum maps are provided for both programs and three references are listed. (CMV)

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ED 167560

REACT II: Computer-Oriented Curriculum. Description of Teacher Inservice Education Materials.
National Education Association, Washington, D.C. Project on Utilization of Inservice Education R & D Outcomes. Jun 78; p8.

The inservice program described here is designed for teachers who wish to investigate how computers may be applied in various subject areas, including business education, English, mathematics, science, and social studies. Nine booklets are the basic learning tools for REACT II (Relevant Educational Applications of Computer Technology). This program description provides information on the purposes and content of the materials as well as activities and resources involved. A critique, history of development, and ordering information are also included. (DS)

Journal Articles

Cutts, Dannie E., and others
Administrator Microliteracy: A Challenge for the 80's.
NASSP Bulletin; v66 n455 p53-59 September 1982.

Explains why principals must be knowledgeable about microcomputers and describes a workshop put on at the University of Mississippi aimed at increasing "microliteracy." (JM)

Hopping, Lorraine
Do-It-Yourself In-Service Training Packages.
Electronic Learning; v2 n5 p38, 45 Feb 1983.

Descriptions of five multimedia, commercially produced packages to support computer in-service training programs. The packages offer varying combinations of slides, audio-cassettes, workbooks, manuals, guides, textbooks, videotapes, tutorials and diskettes, and more.

Lawton, Johnny; Gerschner, Vera T.
A Review of the Literature on Attitudes Towards Computers and Computerized Instruction.
Journal of Research and Development in Education; v16 n1 p50-55 Fall 1982.

This paper reviews research concerning students' and teachers' attitudes toward computers, points out obstacles to computer literacy, and suggests ways to expand it through staff development, planning, and attention to teachers' sensitivities. Factors impeding computer literacy include: (1) diverse computer software and programs; (2) inconsistent terminology; (3) different methodologies; and (4) teachers' anxiety.

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Lopez, Antonio M., Jr.
Computer Literacy for Teachers: High School and University Cooperation.
Educational Technology; v21 n6 p15-18 Jun 1981.

Describes a cooperative program in which high school teachers in Louisiana participated in a series of lectures and labs geared toward helping them use microcomputers in the classroom. Topics included hardware, computer-assisted instruction (CAI), programming, and program modification. (FM)

Martin, C. Dianne; Heller, Rachelle S.
Computer Literacy for Teachers.
Educational Leadership; v40 n1 p46-47 Octobe 1982.

Reviews the range of contextual factors, possible content orientations, training models (from one-day overviews to course offering three college credits), and follow-up mechanisms that must be considered by administrators who have committed their districts to providing inservice programs to develop teachers' computer literacy.

McDonald, Glenda; Holloway, William H.
Computer Awareness: Teaching Different Age Groups.
NAASP Bulletin; v66 n455 p92-98 September, 1982.

Describes a microcomputer laboratory run by the University of Kansas School of Education that offers courses in computer literacy to elementary students, university students, teachers, and administrators. Laboratory sheets used are included. (JM)

Nansen, Craig
Teaching Computer Use—not Programming; an Outline for a Five-session Course.
Electronic Learning; v2 n3 p24 Nov-Dec 1981.

The objectives of this course are to help teachers feel comfortable using computers; to familiarize teachers with good quality educational software; to show teachers how to copy both single programs and entire disks; to teach them how to set up a computer from scratch; and to introduce them to a variety of professional or "utility" programs.

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Roberts, Harold Pepper
Linking Computer to Curriculum Starts with the Teacher.
Educational Computer Magazine; v1 n1 p27-28 May-June 1981.

Clover Park School District has planned a two-year phased-in implementation of microcomputers. This article describes the successes and problems encountered in the first year of the program, which focused on teacher training. (SJL)

Smith, Richard L.
Bibliography: Computer Literacy for Teachers.
Journal of Computers in Mathematics and Science Teaching; v2 n1 p43-45 Fall 1982.

This annotated list of references focuses specifically on computer literacy for teachers. The material is primarily directed at instructors using computers in the classroom and researchers gathering background material in the preparation of articles, grant proposals, and presentations. A total of 36 different sources are listed, alphabetized by author. (MP)

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Research

ED 194074

Allenbrand, Bob, Ed.; And Others
Course Goals in Computer Education, K-12.
Tri-County Goal Development Project, Portland, Oregon 79; 217p.

Designed to be used in conjunction with a school district's educational goals and focusing on what is to be learned rather than the methodology to be used, the program and course goals presented here are intended as guidelines for planning and evaluating elementary and secondary school curricula in computer education. Of four possible levels of goals, only program (general outcomes) and course (specific outcomes) goals are included, leaving the use of behavioral and/or planning objectives optional at the classroom teacher level. Two taxonomies are provided: the first describes the three types of goals in this collection--knowledge (information), process (skills and abilities), and values (attitudes and opinions); the second classifies a specific subject (computer education) into components (e.g., computer system, hardware, software, applications). Program goals are listed for both career and computer education, and course goals are given for values and computer education, processes of inquiry and problem-solving, basic education and computer education, computer systems, calculators, computer hardware, computer software, computer applications, computer uses in business and industry, history of computer development, computer science, and computer education and careers. A concept list, an index to computer-related issues, and a subject index are attached. (MER)

ED 158729

Computer Education Guide.
Newark School District, Del. Aug 76; p64.

Recognizing the need of all students for awareness of nature and functions of the computer in modern society, as well as computer literacy for those specializing in specific major fields, this guide was developed to aid secondary school teachers in determining how to integrate computer education in their courses. The first of the five goals presented addresses the general need for awareness for all students; remaining goals are concerned with both awareness of and involvement in computer applications in specific areas--the business field for all business students, the academic subject areas for all college-bound students, and more specialized applications for social-science oriented and science and mathematics oriented college-bound students. Educational and specific instructional objectives, suggested activities, strategies, topics, and notes are provided for each goal. A flow chart is included for determining which goals are applicable in specific courses. Appendices include lists of films and simulation activities relevant to specific academic areas which could be used to help meet these goals and objectives. (CMV)

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ED 193022

Computer Literacy Program Briefs.
Human Resources Research Organization, Alexandria, VA. 78; 20p.

Computer Literacy Program Briefs for seven schools and/or school districts are presented. Topics covered in each brief include: the institutions covered, the educational program strategies, the target student audience, major components of the instructional program, illustrative examples of specific objectives, organization of the instructional package, facilities and equipment used, the nature and extent of teacher training, classroom activities and resource materials, and the impact and effect of the computer literacy program. (MP)

ED 195247

Hunter, Beverly
An Approach to Integrating Computer Literacy Into the K-8 Curriculum.
Human Resources Research Organization, Alexandria, VA. Oct 80; p12.

The goal of the research and development project described is to make it possible for students in grades K-8 to acquire at least minimal computer-related skills. The report gives the long range goals of the project, perceptions on the need for a computer literacy program, recommendations of approaches for satisfying that need, and pros and cons of a K-8 infusion approach to computer literacy. A series of curriculum guides for the K-8 computer literacy program for use by school administrators, media center people, teachers for grades K-8, and subject coordinators will be produced before the termination of the project, scheduled for September 1983. (MER)

ED 207617

Hunter, Beverly
Computer Literacy.
Apr 27, 1981; p13.

The concept of computer literacy is examined as it applies to two-year colleges. The paper begins with definitions of the term, emphasizing the skills, knowledge, and attitudes toward computers that are considered criteria for computer literacy. The paper continues by describing a conference at which educators attempted to visualize the technology of the future and its implications and by listing areas in which these educators were successful (e.g. predicting the intelligent vidodisc) and unsuccessful. Next, six reasons why a broad base of computer literacy is needed are examined, including reasons related to the changing economy, the changing nature of jobs, promotion of equity in access to computers, world competition, the need to encourage student skills, and the need to understand issues of public policy for technology. The paper then suggests priorities for planning computer literacy programs, which include, in order of importance, enhancing the computer literacy of educational administrators,

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planning curricula for the use of the computer, purchasing hardware and software to support the curricula, supporting faculty members who encourage computer literacy, supporting academic computing facilities, gaining assistance from industry, and fostering computer literacy at pre-college levels. The paper concludes with a projected profile of the computer-literacy level of the entering college class of 1985, which foresees a wide variation in experience with computers. (KL)

ED 207331

Mayer, Richard E.
Contributions of Cognitive Science and Related Research on Learning to the Design of Computer Literacy Curricula. Report No. 81-1. Series in Learning and Cognition.
California University, Santa Barbara, Dept. of Psychology. Dec. 80; p35.

A review of the research on techniques for increasing the novice's understanding of computers and computer programming, this paper considers the potential usefulness of five tentative recommendations pertinent to the design of comp
concrete model of the computer; (2) encourage the learner to actively restate the new technical information in his or her own words; (3) assess the learner's existing institutions about computer operation and try to build on or modify them; (4) provide the learner with methods for analyzing statements into smaller, meaningful parts; and (5) provide the learner with methods for analyzing statements into smaller, meaningful parts. It is concluded that, while results of cognitive research provide qualified support for the first two recommendations, more active research is needed on the other three. A bibliography lists 59 references, and appendices include seven statements used in a BASIC-like instructional booklet, examples of six types of test problems for a BASIC-like language, an example of an elaboration exercise, and data from a study included in the review. (MER)

ED 213400

Nordman, R.; Parker, J.
Teaching Computer Literacy in an Elementary School: A Comparison of Two Methods of Using Microcomputers.
Educational Research Institute of British Columbia, Vancouver. Sep. 81; p165.

This report compares two methods of teaching BASIC programming used to develop computer literacy among children in grades three through seven in British Columbia. Phase one of the project was designed to instruct children in grades five to seven on the arithmetic operations of writing simple basic programs. Instructional methods include using job cards, program cards, and large group instruction, and each student was allowed to spend an equal amount of time on the computer. Phase two was also designed to teach arithmetic operations of basic programming, but this time work-

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sheets and take home assignments were the major instructional tools used with children in grades three through five. Moreover, students were only allowed to use the microcomputers as needed to complete assignments. Results indicate that children from both groups made gains in their comprehension of programming, but that this is not necessarily related to age or instructional methods. It was concluded that LOGO type languages may be better for working with elementary school students, with BASIC being reserved for more advanced stages of instruction. The report includes pre- and posttests, scores, job cards for lessons, and background material for teaching computer literacy prior to programming. (MER)

ED 168562

Rice, Jean M.
Computer Education in the Edina, Minnesota, Elementary Schools.
Apr 75; p14.

This computer literacy project, which was carried out with a group of fifth grade students, was designed to provide them with an enjoyable experience in learning about the computer through such activities as interactive programs, games, discussions, interviews, and field trips. Course content covered the history of computers, computer components, applications, flowcharting, and an introduction to programming. Student, parent, and staff surveys were conducted to determine the viability of the project. This project provided the basis for a computer literacy text, "My Friend the Computer," by Jean M. Rice. (RAO)

ED 208847

Wright, Annette
Developing Standards and Norms for Computer Literacy. Discussion Paper 06/80.
British Columbia Dept. of Education, Victoria. Information Service; JEM Research, Victoria (British Columbia). Jul 80; p75.

This paper provides educators with a general perspective on computer literacy and an in-depth examination of the Computer Literacy Awareness Assessment conducted by the Minnesota Educational Computer Consortium (MECC). Addressing computer literacy as part of the ongoing use of computers in a classroom setting is identified as the most reasonable approach for introducing computer literacy to British Columbia. Computer literacy is then defined and discussed in terms of specific experiences or desired outcomes of literacy. The remainder of the paper discusses the development of the Minnesota Assessment, including purposes of the test and its structure. The test comprises three parts: (1) affective assessment--six scales of five items each; (2) cognitive test--53 true/ false or multiple choice items; and (3) survey of background variables--37 items.

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The appendices include the validation of the test; administration and scoring norms; a priori cognitive sub-test; revised cognitive sub-tests; reliabilities, means and standard deviations for cognitive sub-tests; intercorrelations and percentile norms of cognitive sub-test and revised sub-test; affective scales; and Computer Literacy Questionnnaire. (CHC)

Journal Articles

L'Allier, James J.; Tennyson, Robert D.
Principles of Instructional Design Applied to An Introductory Course on Educational Computing.
Journal of Computer-Based Instruction; v7 n2 p26-32 Nov 1980.

Identifies design variables directly related to the development of computer-based instruction (CBI) and shows how those variables can be applied in the actual development of a course. The design is for a computer literacy course concerned with both content and student attitudes about that content. (Author)

Bitter, Gary G.
The Road to Computer Literacy.

Five part series:

"Part 1: A scope and Sequence Model;" Electronic Learning; v2 n1 p60-63 Sept 1982.

"Part 2: Objectives and Activities for Grades K-3;" Electronic Learning; v2 n2 Oct 1982.

"Part 3: Objectives and Activities for Grades 4-6;" Electronic Learning; v2 n3 p44-48, 90-91 Nov-Dec 1982.

"Part 4: Objectives and Activities for Grades 7-9;" Electronic Learning; v2 n4 p40, 42, 46, 48 Jan 1983.

"Part 5: Objectives and Activities for Grades 10-12;"
Electronic Learning; v2 n5 p54, 56, 60 Feb 1983.

Parts 2 and 3 concentrate on building a foundation of computer literacy skills including what a computer is, how it works, and the rudiments of programming in BASIC. Part 4 introduces junior high students to more complex subjects such as simulation programs and social issues. Part 5's goal is to expose all students to computers in a variety of curriculum areas.

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Firedrake, George; Zamora, Ramon
My Computer Likes Me.
Popular Computer; v1 n1 p58, 60, 62, 64, 66 Nov 1981.

Presents a lesson plan for showing children how to operate a TRS-80 Color Computer. (SJL)

Gress, Eileen K.
A Computer-Literacy Module for the Junior High School.
Arithmetic Teacher; v28 n7 p46-49 Mar 1982.

A framework for a computer literacy module is detailed, through a description of one that has evolved in schools in Fairport, New York. It is noted that the availability of computer literacy instructional materials is increasing substantially but a specific curriculum is sorely lacking.

Johnson, David C.
Computer Literacy—What Is It?
Mathematics Teacher; v73 n2 p91-96 Feb 1980.

Computer Literacy Objectives developed by the Minnesota Educational Computing Consortium (MECC) computer literacy study are given. The objectives are grouped under the six headings: Hardware; Programming and Algorithms; Software and Data Processing; Applications; Impact; and Attitudes, Values, and Motivation. (MK)

Jones, Aubrey B., Jr.
Computers Are Their Thing.
Technological Horizons in Education; v8 n1 p54-56, 61 Jan 1981.

Describes a pilot project in Philadelphia which introduced seventh- and eighth-grade minority students to computers as a means of building their self-confidence and encouraging them to pursue careers in engineering and computer science. Includes partial course outline, evaluation methods, and tips for success. (DC)

Kirchner, Alice M.
One State's Approach to Computer Literacy.
Technological Horizons in Education; v8 n4 p43-44 May 1981.

Reports on a pilot to introduce an introductory course in computer literacy for elementary through postsecondary students in Pennsylvania. Includes descriptions of course rationale and teacher training. (DC)

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Targ, Joan
Computer Tutors: An Innovative Approach to Computer Literacy. Part I: The Early Stages.
Educational Computer Magazine; v1 n1 p8-10 May-Jun 1981.

In Part I of this two-part article, the author describes the evolution of the Computer Tutor project in Palo Alto, California, and the strategies she incorporated into a successful student-taught computer literacy program. (Editor/SJL)

Targ, Joan
Computer Tutors: An Innovative Approach to Computer Literacy.
Educational Computer Magazine; v1 n2 p20-24 July 1981.

Part two of this series is subtitled "A Role Model - From the Selection Process to Implementation" and describes this Title IV-C project in the areas of: hardware selection, lesson refining, tutors and volunteers.

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NETWORKS

Journal Articles

Feltman, Charles
Local Networks.
Popular Computer; p115-118, p122-123 April 1983.

Provides an overview of two basic configurations for local networks and reviews currently available specific products.

Fisher Glenn.
Disk Sharing: How to Make One Disk Drive Go Round.
Electronic Learning; p 46-51 May/June 1982.

Discusses advantages of disk sharing--a system which makes it possible to link several computers to one central disk drive, rather than having a separate disk drive for each machine--and compares features and current systems.

Gilbert, Betsy.
Computer Connection--Local Networks.
Personal Computing; v5 n12 p26-29+ December 1981.

Discusses the difference between local networks and timesharing systems.

Saal, Harry.
Local-area Networks: Possibilities for Personal Computers.
Byte; v6 n10 p 92-112 October 1981.

Describes the distinguishing characteristics of local network systems and also discusses some related designs that are not local networks, but address many of the same problems.

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FACILITY PLANNING

Journal Articles

Coburn, Peter; and others.
How to Set up a Computer Environment.
Classroom Computer News; v2 n3 p29-31, 48 Jan-Feb 1982.

This material is excerpted from the first book of the Addison-Wesley series on computers in education titled "Practical Guide to Computers in Education." Details on planning the physical setup, the question of access, providing the information needed, and establishing rules for computer use are presented as a guide. (MP)

Lopez, Antonio M., Jr.
Facilities for Microcomputers.
American School and University; v54 n4 p34-40 December 1981.

Microcomputers are used in schools for both administrative and academic purposes. The facilities required by the administrative and academic needs are different in size and cost. Guidelines for housing the microcomputers are offered. (MLF)

Walters, Greogry M.
A Guide for the Design and Implementation of a Microcomputer-Based Learning Lab.
Educational Computer Magazine; v2 n1 p26-29, 47-49 Jan-Feb 1982.

Highlights the major design decisions for educators who are planning a microcomputer-based learning laboratory. Drawings and tables showing sample layouts, hardware and software attributes, funding sources and lists of microcomputer periodicals are included. (JJD)

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WORD PROCESSORS

Journal Articles

Boudrot, Thomas E.
The Magical Typewriter: A Step-by-step Guide for Choosing and Using a Word Processing Program in Your Classroom.

Electronic Learning; p84-87 February 1983.

Considerations for purchasing hardware and software and for implementing a word processing system in a classroom. Includes a sample chart of word processing programs, prices and micro/memory.

Bradley, Virginia N.
Improving Students' Writing with Microcomputers.
Language Arts; v59 n7 p760-68 October 1982.

Discusses how microcomputers can stimulate invention in composition through electronic mail, text analysis, and word processing programs. Describes two exploratory studies designed to examine the feasibility of using a word processor for language experience and sentence-combining activities in the elementary school classroom.

Daiute, Collete
Word Processing: Can it Make Even Good Writers Better?
Electronic Learning; p29-31 Mar-Apr 1982.

While the research is not conclusive, generally computer writers are less concerned about making mistakes, tend to compose longer manuscripts on the computer, and revise more on the computer. Drawbacks include cost, portability, accidental loss of electronic texts, and a need to know touch typing for most effective use.

Elliot, Daivd L.
The Electronic Poet: Using Computer Haiku in the Poetry Class.
Media & Methods; p32, 36 March 1982.

A teacher's experiences using a computer program to increase students' sensitivity to poetry and its linguistic resources.

Fisher, Glenn
Word Processing-Will it Make all Kids Love to Write?
Instructor; p87-88 February 1983.

Describes what a word processor is, how word processing can make better writers, and how to handle the stumbling blocks of computer access--poor typing skills and faculty resistance.

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Howe, Samuel F.
Word Processing: You May Never Want to Type on a Regular Typewriter Again.
Media & Methods; p24 February 1982.

Suggested uses for the word processor include the school newspaper, teaching English composition, grammar skills and test writing.

Judd, Dorothy H.
Word Processing in the Classroom: Is It Really Practical?
Educational Computer Magazine; p18-19 May-June 1982.

Examples of classroom learning activities and recordkeeping that should be cost-effective for school systems.

Levin, Robert and Doyle, Claire
The Microcomputer in the Writing/Reading/Study Lab.
T.H.E. Journal; v10 n4 pp77-79, 100 February 1983.

Discusses the advantages at a Community College of using a microcomputer as an alternative means of composition (word processing) and as an alternative support to strengthening verbal skills teaching.

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Research

Abelson, Hal; Goldenberg, Paul
Teacher's Guide for Computational Models of Animal Behavior: A Computer-Based Curriculum Unit to Accompany the Elementary Science Study Guide "Behavior of Mealworms." Artificial Intelligence Memo No. 432.

Massachusetts Ins. of Tech., Cambridge. Artificial Intelligence Lab. Apr 77; 35 p.

Available from: Artificial Intelligence Lab., 545 Technology Square, Rm 338, Cambridge, MA 02139 ($1.75).

This experimental curriculum unit suggests how dramatic innovations in classroom content may be achieved through use of computers. The computational perspective is viewed as one which can enrich and transform traditional curricula, act as a focus for integrating insights from diverse disciplines, and enable learning to become more active and project oriented. This unit suggest how an interplay of computer and non-computer activities could occur with elementary school biology. This material is envisioned as a second exposure to the LOGO programing language. Hence, the issues of introducing students to the basics of writing procedures and controlling turtles are not discussed. The focus is on illustrating how accessible computer-oriented facilities can be integrated into the classroom. (MP)

Cauchon, Paul
Chemistry with a Computer.
Programs for Learning, Inc., New Milford, Conn.
80; 184 p.

Programs for Learning, Inc., New Milford, CT 06776 (no price quoted).

This book, intended to serve as a resource guide for teachers wishing to implement computer-based learning in their own classrooms, is a collection of 29 classroom tested instructional programs designed to supplement an introductory chemistry course, regardless of text or approach. The programs cover a wide range of topics, from metric units of measure to solubility product calculations. To facilitate the use of the program, a description, sample run with student inputs underlined, and program listing have been included for each program. Programs are categorized as tutorial, simulation, problem generation, or demonstration. Program listings are all given in a version of BASIC used commonly in academic institutions. An appendix offers suggestions for modifications if help is needed with the translation of commands from BASIC to another system. (CS)

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ED 196702

Flowers, John D.
Making Water Pollution a Problem in the Classroom Through Computer Assisted Instruction.
Oct. 80; 20 p.

Alternative means for dealing with water pollution control are presented for students and teachers. One computer oriented program is described in terms of teaching wastewater treatment and pollution concepts to middle and secondary school students. Suggestions are given to help teachers use a computer simulation program in their classrooms. Formulating hypotheses, identifying and manipulating variables, analyzing computer generated data tables, and graphic displays are described with regard to problem solving. (Author/CO)

Helgeson, Stanley L.
Clearinghouse on Science, Mathematics, and Environmental Education. Microcomputers and Science Teaching; ERIC/SMEAC Fact Sheet No. 3 1982.

AVAILABLE FROM: **SMEAC**, 1200 Chambers Road, Third Floor, Columbus, Ohio 43212.

Reviews the literature on computers as a part of the educational scene, Computer Literacy and the instructional uses of computers in science teaching.

Journal Articles

Milsop, Marilyn P.
So You've Got a Microcomputer in Physics Class--Now What?
Physics Teacher; v19 n1 p51-52 Jan 1981.

Suggests approaches to teaching computer programming and applications to physics instruction. Indicates that the necessity of breaking a problem down into a programable entity ensures that the student will learn programing, logical sequential thinking, as well as physics content. (JN)

Moore, John W., Ed.
Computer Series, 19: Bits and Pieces, 6.
Journal of Chemical Education; v58 n7 p549-56 Jul 1981.

Presents 11 short descriptions on the applications of computers in chemistry classrooms and laboratories, including among others, using microcomputer graphics to teach quantum theory, a versatile and inexpensive instrument/computer interface, and a microcomputer-controlled scintillation spectrometer. (JN)

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Rowbotham, Neil
Using a Microcomputer in Science Teaching.
School Science Review; v63 n222 p70-77 Sep 1981.

Explores several options and advantages of using microcomputers in science teaching. Describes programs for calculating pH, Maxwell-Boltzman distribution of velocities in gas, atomic orbitals, and lattice energies. Also suggests use of microcomputers in the areas of simulations, scoring tests, and controlling stock. (D8)

Sparkes, Bob
Microcomputers in Physics.
Physics Education; v16 n3 p145-51 May 1981.

Describes the use of microcomputers in data acquisition and simulation of physical phenomena. Discusses digital and analog inputs/outputs, simulations, and interactive programs in mechanics. Includes examples of computer programs. (SK)

Tocci, Salvatore
The Microcomputer/Biology "Interface."
Science Teacher; v48 n5 p60-62 May 1981.

Describes ways that computer-assisted instruction (CAI) is used in a high school biology course, including: (1) mastery of specific objectives; (2) CAI as a self-check; (3) computer games; (4) laboratory simulations; (5) genetics instruction; (6) writing programs; and (7) remedial assistance and testing. (CS)

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MATHEMATICS

Research

ED 205169

Fors, George, Ed.
Microcomputer Guide.
North Dakota State Department of Public Instruction, Bismarck. Sep 79; p51.

Designed for use by school districts introducing computer mathematics in the curriculum, this manual provides guidelines for selecting a microcomputer system, as well as objectives and an outline for an introductory course in computer programming. Also presented are topics for computer applications in science, mathematics, chemistry, and physics, and three computer programs: (1) STAR PROBE, used to demonstrate the effects of gravitation and changes in velocity components (TRS-80 Level II BASIC); (2) Coefficients of Friction; and (3) Elemental Ratios for Empirical Formulas. Resources listed include textbooks on computer programming, references, periodicals, and a glossary of computer terminology. Programming information for a CAI spelling program, a descriptive outline of computer-related careers, and an introduction to flow charting (with examples) are appended. (LLS)

ED 212480

Bishop, Thomas D.
Applications of the Microcomputer to Existing Mathematics Courses.
Oct 81; p6.

The microcomputer and microcomputer systems are viewed as offering a wealth of new opportunities for school mathematics programs, and provide an alternative to time-sharing in both cost and convenience. Four possible sources of suitable software are noted, and the following types of programs are discussed as useful for classroom work: (1) drill and practice, (2) tutorials, (3) demonstrations, (4) computer managed instruction, (5) problem solving, and (6) simulations. It is concluded that microcomputers offer inexpensive delivery systems for teacher-prepared courseware, but are not intended to preempt the use of more classical mediums such as print. This technology is seen to offer both teachers and students new opportunities to expand interest and knowledge. (MP)

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ED 204144

Copple, Christine
Computers in the Secondary Mathematics Curriculum.
Jun 81; p34.

The purpose of this document is to increase the educator's awareness of the present situation in computers in the school. Although the study was directed at computers in the secondary mathematics curriculum, of necessity much of the material dealt with broader aspects of the computer in all secondary curricula. The first section of this report consists of a glossary of commonly used computer-oriented terms. The bulk of the document is a series of annotations of some of the current literature on computers, the first portion focusing on facts, figures, poritions, and attitudes regarding computer use in the secondary curriculum. The second set of annotations deals with computer uses in the mathematics classroom, and is subdivided into the following areas of concentration: (1) the teaching of computer literacy; (2) the teaching of computer science; and (3) computer-assisted instruction. The final annotation section focuses on the special aspects of microcomputers. The document concludes with a summary, some general conclusions, and two specific recommendations regarding computer use at the secondary level. (MP)

Journal Articles

Camp, John S.; Marchionini, Gary
Computer Enhanced Mathematics.
Viewpoints in Teaching and Learning; v57 n2 p1-12 Spr 1981.

Six major categories encompassing the various ways in which computers can be used to enhance mathematics education are listed and described. Examples of problem solving, drill and practice, management of instruction, and tutorial applications are followed by predictions about the future of instructional computing in mathematics education. (JM)

Henry, Loren L.
Computers and Middle School Mathematics.
Viewpoints in Teaching and Learning; v57 n2 p46-54 Spr 1981.

Potential instructional uses of the computer for expanding middle school mathematics programs are described. Content areas which are represented include geometry, number theory, computation, consumer education, and probability. (JM)

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Frandsen, Henry
Trigonometry--Mathematics Curricular Areas and Instructional Computing.
Viewpoints in Teaching and Learning; v57 n2 p82-95 Spr 1981.

The computer has enormous potential for enhancing the secondary trigonometry curriculum. Areas that can be improved through use of the computer include: solutions of triangles, inductive investigations of functions, graphs of functions, and solution of trigonometric identities. (JN)

Kantowski, Mary Grace
The Microcomputer and Instruction in Geometry.
Viewpoints in Teaching and Learning; v57 n2 p71-81 Spr 1981.

The microcomputer has great potential for making high school geometry more stimulating and more easily understood by the students. The microcomputer can facilitate instruction on both the logico-deductive and spatial-visual aspects of geometry through graphics representations, simulation of motion, and its capability of interacting with the students. (JN)

Krist, Betty J.
Algebra and Instructional Computing.
Viewpoints in Teaching and Learning; v57 n2 p55-70 Spr 1981.

Examples are provided which demonstrate the use of the computer as an instructional aid for the algebra curriculum. While the basic content of an algebra course would remain intact, computer technology can enhance and expand methods of algebra instruction. (JN)

O'Connor, Vincent F.
When Computer Meets Kid in Middle School Math.
Classroom Computer News; v2 n4 p60-61 Mar-Apr 1982.

A way to use programs that orient students to use of the computer and establish a schedule for pupil access is presented. The distinction between using the computer as a medium for instruction and using it as a topic of instruction is viewed as not entirely clear-cut. (MP)

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Research

ED 160068

Hicks, Bruce; Zibit, Melanie
MC Painting--A New Medium for Art Education.
Illinois Univ., Urbana. Dept. of Secondary Education. Mar 78; p11.

The MC (microcomputer) paint brush and other parts of the MC painting medium can be used easily by the student, teacher, or artist, young or old, to produce color pictures on a TV screen and store them for later viewing or modification. The 15 colors available--two intensities of each of six colors, black and two whites--can be painted with any one of four "brushes"--one narrow and three wide--making continuous strokes or one dab at a time. The essential element of decision-making that is inherent in the artistic creative process is present in each step of MC painting; this element is easily controlled by the artist-user, who can be as spontaneous or as calculating, as fast or as slow, in his artistic activity as he wishes. (CMV)

ED 172779

Zibit, Melanie; Hicks, Bruce
A Multi-Purpose Educational Medium--MC Painting.
Illinois Univ., Urbana. Coll. of Education. Oct. 78; p22.

This discussion of a new computer-based medium describes microcomputer (MC) painting and its principal tool, the MC paintbrush, and explores their potential roles in mathematics, computer science, and art education in secondary schools. This paper describes the school computer, discusses capabilities of MC painting, explains how MC painting is done and what the computer does, argues for classroom use of the school computer, and discusses the meaning of literacy in mathematics, computers, and art. (JD)

ED 190116

Peters, G. David
Courseware Development for Micro-Processor Based Instruction in Music.
79; p8.

This report on an investigation of available hardware which would support music peripherals in an instructional mode focuses on the application of microcomputers to the teaching of music. It discusses microprocessor-based PLATO instruction, hardware selection, and courseware transfer, and notes that experimental lesson results indicate that microcomputers have the demonstrated capacity to support high-quality computer-based education in music. References are provided. (FM)

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Journal Articles

Sealey, David.
Computer-Assisted Instruction in Theater.
Pipeline; v6 n2 pli, 64 Fall 1981.

Several programs designed to aid theater technicians in mathematics and optics related to their intended careers are discussed. The four packages described drill applications of algebra, trigonometry, lens sytems, and aspects of manipulating light relevant to theater. (MP)

Sustik, Joan M.
Computer-Assisted Instruction in Dance.
Pipeline; v6 n2 p9-10 Fall 1981.

An initial project that uses a computer-controlled laser-read videodisc as a tool in ballet instruction at the University of Iowa is described. (MP)

Kehrberg, Kent T.; Pollack, Richard A.
Videodiscs in the Classroom: An Interactive Economics Course.
Creative Computing; v8 n1 p98-102 Jan 1982.

The development of an economics course that uses Apple and videodisc players is described. The course was chosen because it is one that is frequently eliminated when school budgets are tightened and enrollments drop, and it was felt that the new technology could offer a solution. (MP)

Killam, Rosemary N.; And Others
Computer-Assisted Instruction in Music.
Pipeline; v6 n2 p3-4 Fall 1981.

The use of computer assisted instruction (CAI) in music education at North Texas State University is described. A special authoring language for CAI music lessons has been developed. (MP)

Placek, Robert W.
A Model for Integrating Computer-Assisted Instruction Materials into the Music Curriculum.
Journal of computer-Based Instruction; v6 n3 p99-105 Feb 1980.

Discusses the importance of the design structure of total programs in computer assisted music instruction and presents a model for integrating computer assisted instruction materials into the music curriculum. Listed are objectives and their relevant behaviors for use in a CAI course of study in music education. (Author)

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Steele, Douglas J.; Wills, Barry L.
Microcomputer-Assisted Instruction for Musical Performance Skills.
Technological Horizons in Education; v9 n1 p58-60, 64 Jan 1982.

Current investigations in the Computers and Music group in the Department of Systems Design Engineering at the University of Waterloo are detailed. New instructional methods and applications are described and proposed that take advantage of microcomputers to improve and enhance the teaching and learning of music. (MP)

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Research

Clearinghouse for Social Studies/Social Science Education
Microcomputer Software and the Social Studies: Fact Sheet No. 7 Dec 1982.

Available from the Clearinghouse for Social Studies/Social Science Education; 855 Broadway, Boulder, CO 80302.

This fact sheet provides general information to help educators find answers to questions related to the use of microcomputer software in the classroom.

ED 209165

Diem, Richard A.
Computers in the Social Studies Classroom. How to Do It Series, Series 2, No. 14.
National Council for the Social Studies, Washington, D.C. 81; p8.

Designed to introduce social studies teachers to computers and to suggest ideas for their potential applications in social studies classrooms, this booklet is arranged in various sections. One section describes the origins of the modern computer, another defines computer terminology, and two sections explain computer hardware and computer software. Another section discusses three major ways in which computers are being used in schools. The first is computer assisted educational management systems which are designed to provide the evaluation of entering students, prescription formulating, individualization of instruction, record keeping, curriculum development, and evaluation. Second, computer assisted instruction (CAI) is being widely used. Drill and practice, tutorial help, simulations, inquiry modes (these allow students to ask questions within the context of the lesson), problem solving, and computerized games are common varieties of CAI. And third, computers are being used in what is called computer assisted learning. Students use the computer as an aid in solving problems, reviewing, and evaluating their progress. The booklet discusses training teachers to use a computer. Instructional software for teachers is cited. A sample lesson, "Election Projects," for using computers in the social studies classroom is provided. The booklet ends with a discussion of what the future holds. The results of a national survey to assess the use of computers in public elementary and secondary schools are also provided. A bibliography is included. (RM)

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ED 164424

Hantula, James
Using the Computer in the Social Studies Classroom.
Nov 78; p13.

Social studies instruction will improve if social studies educators cooperate with computer professionals to develop ways of using the computer in the classroom. Objections of many social studies teachers to computers are based on experiences in which computers were used to intimidate consumers, implement poorly conceived projects, and promote rigid instructional approaches. If social studies teachers and computer professionals work together to provide a balanced program in processing information, they can extend skills of data collection, storage, retrieval, and analysis. Examples of computer projects of special interest to social studies teachers include the PLATO system, which is especially useful for studying population geography, and computer based resource units. Specific advantages of using computer instruction in the classroom include individualization of instruction, broadening of teachers' bases of information by allowing them to search various computer bases such as Educational Resources Information Center (ERIC), diagnosis of student needs, assignment of instructional sequences, evaluation of programs, locating information, data processing, and enhancing educational games and simulations. (DB)

Journal Articles

Auyer, Stephen E.
Simulation of Competitive Business.
Creative Computing; v7 n3 p146-57 Mar 1981.

A computer program written in BASIC designed to simulate the activities of businesses in a marketplace where several car companies compete is provided. The educational uses of this program in an eighth-grade consumer class are highlighted. (MP)

Bolton, Harold; Mosow, David K.
Microcomputers in the Classroom: A Foot in the Door.
Educational Computer Magazine; v1 n3 p34-36 Sept-Oct 1981.

To study attitudes toward computer assisted instruction in social studies, secondary students and teachers in Mobile, Alabama, were asked to use the microcomputer-based simulation "Civil War." Pre- and post-assessment scores of subjects' knowledge/attitudes concerning microcomputers are discussed. (SJL)

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Kehrberg, Kent T.; Pollack, Richard A.
Videodiscs in the Classroom: An Interactive Economics Course.
Creative Computing; v8 n1 p98-102 Jan 1982

The development of an economics course that uses Apple computers and videodisc players is described. The course was chosen because it is frequently eliminated when school budgets are tightened and enrollments drop, and it was felt that the new technology could offer a solution. (MP)

Olds, Henry F., Jr.
Geography Search.
Classroom Computer News; v2 n3 p34-36 Jan-Feb 1982

A computer software package designed to lead students through exploration using ancient sailing ships is reviewed, focusing on features, educational value, design quality, written materials, and ease of use. The price was seen to be too high for most individual teachers or parents. (MP)

Saltinski, Ronald
Microcomputers in Social Studies: An Innovative Technology for Instruction.
Educational Technology; v21 n1 p29-32 Jan 1981

Examines the application of microcomputer statistics in social studies, and computer access and simulations in middle school environments. An interdisciplinary framework of curricula among social studies, science, and mathematics teachers with equal access to microcomputers and software programs is encouraged. (MER)

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Research

ED 198793

Brebner, Ann; And Others
Teaching Elementary Reading by CMI and CAI.
80; 23p.

A computer managed instructional system for reading, begun five years ago in Belvedere-Parkway Elementary School in Calgary, contains 329 behavioral objectives ranging from kindergarten to 8th grade levels, with testing performed online. After completion of a test, a student receives a print-out listing the objectives completed, those that need revision, and those that remain to be learned. Class reports show student performance by objectives, and provide specific prescriptions for each student related to the reading texts used in the school. Results show that teachers, students, and parents have all benefited. Teachers are freed from administering, scoring, and recording tests, and can use the prescriptions to plan individualized instruction. Students are motivated by the positive statements about their progress which appear on their individualized summary sheets together with the objectives which still need work. Parents are pleased because they know, from the summary reports where their children are in relation to what is expected. In addition, reading achievement scores for 6th grade students have increased from the 25th to the 55th percentile. Copies of the student summary sheet and the summary report are included. Additional details are provided in the attached paper by the same authors. (BK)

ED 203872

Cronnell, Bruce; Humes, Ann
Using Microcomputers for Composition Instruction.
Mar 81; 10p.

One of the most valuable uses of microcomputers and word processors in composition instruction is in the teaching of writing revisions. A number of activities can be carried out with these tools; for example, (1) after appropriate instructon on revision, students can be given prewritten text and asked to revise it on the word processors; (2) after a student has composed a text, the microcomputer can suggest that revisions be made; and (3) after a student has composed a text, the microcomputer can look for specific kinds of errors in the writing, mark the place where the errors occur, and require the student to correct them. Microcomputers and word processors may also be used to teach students sentence combining and how to generate and arrange content. (LLS)

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ED 208415

Lawler, R.W.
One Child's Learning: Introducing Writing with a Computer. A. I. Memo No. 575.
Massachusetts Inst. of Tech., Cambridge. Artificial Intelligence Lab. Mar 80; 20p.

This paper observes that computer access affects a child's learning significantly, and presents a case study of one child's use of the computer as an example of how computer-based introduction to writing might work. The case study highlights the suitability of computers for an introduction to writing that separates the structural elements of composition from content. Specific later developments of the subject's writing are offered to suggest that the child's earlier experiences in computerized writing remained important for learning writing forms, such as short stories and friendly letters. (RL)

Mason, George E.; Blanchard, Jay S.
Computer Applications in Reading.
International Reading Association, Newark, Del. 79; 115p.

Consituting the first full treatment of computers in reading, this volume focuses on recent developments in computer assisted instruction and its classroom implications. The eight chapters provide information on the following topics: the development of digital computers and of programs for using them for educational purposes, college centers developing computer based reading programs, public school applications of computers to reading instruction, computer assessment of readability and textbook analysis, sources of computer services, recommended uses of computers in the reading program, computers in reading research, and the future of the computer as an aid to reading instruction. Extensive annotated references are provided for each chapter. (FL)

ED 208860

Vickery, Carol A.
Personal Experiences: Using Microcomputers in a Junior High School High-Potential Program.
30 Apr 81; 29p.

This report describes the beginning of a school district's involvement in the use of microcomputers in the classroom, and one teacher's experiences with microcomputers in a junior high school setting. Background information is given on how the district financed its initial computer investment, approaches the district used to encourage teacher involvement with computers and an analysis of microcomputer applications in an English class, in writing a school newspaper, and in a program for the academically gifted. Strategies for initiating teacher involvement and managing student enthusiasm over a 2-year period are presented, as well as suggestions for using microcomputers in writing programs.

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Journal Articles

Levin, Dan
In New Orleans Schools, Computers Track Students' Progress in Learning Hundreds of Skills.
Executive Educator; v2 n3 p24-25 Mar 1980

Briefly describes the New Orleans schools' computer-managed instruction in mathematics and language arts in the junior and senior high schools. (RT)

Mason, George E.
The Computer as a Teacher of the Disabled Reader.
Journal of Research and Development in Education; v14 n4 p97-101 Sum 1981

Computerized remedial reading instruction has become an increasingly popular technique in schools. The future holds enormous potential for additional roles to be played by the computer with regard to educational techniques for the reading-disabled--in diagnosis and prescription of reading difficulties--and in computer assisted remedial reading programs. (JN)

Mason, George E.
Computerised Reading Instruction: A Review.
Educational Technology; v20 n10 p18-22 Oct 1980

Discusses some of the more familiar computer assisted instruction systems, their knowledge base, market sources, and adaption in college, elementary, and secondary education reading programs. (MER)

O'Donnel, Holly
Computer Literacy, Part II: Classroom Applications.
Reading Teacher; v35 n5 p614-17 Feb 1982

Distinguishes between computer assisted instruction and computer managed instruction and relates some of their applications to the reading classroom. (PL)

Thompson, Barbara J.
Computers in Reading: A Review of Applications and Implications.
Educational Technology; v20 n8 p38-41 Aug 1980

Briefly summarizes the applications and implications of computer-assisted instruction, computer-managed instruction, and computer-based resource units. Other computer applications and research are discussed. (JD)

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Advanced BASIC Techniques (Series)
Educational Activities, Inc., P.O. Box 392, Freeport, NY 11520. 1981. #FSC 384. $79 series.

Cassette. Automatic and manual. Color. Four strips with 4 cassettes. With teacher's guide. Preview available. Includes: String Functions; Data Handling and Arrays; Computer Graphics; Advanced Mathematical Functions.

Grades 9 Up--Designed for students who already understand the essentials of programming computers in BASIC language. The programming techniques taught are those which are universal to most BASIC dialects.

Adventures of the Mind
Children's Television International, Inc., 3 Skyline Pl., Suite 1100, 5201 Leesburg Pike, Falls Church, VA 22041.

Is a series of six 15-minute video tapes on personal computing. Designed to be used in the classroom, the package includes a 21-page teacher's guide and video tapes in 2" quad, VHS, Beta or 3/4" format.

Topics covered include: Computers as Personal Tools; Computer Components and Functions; The Basic Language--A Beginner's Introduction; Data Processing Control and Design; Advantages and Disadvantages of Personal Computers; and Impact of Personal Computers on the Individual.

The teacher's guide provides questions and activities to be used before and after the viewing of each tape, outlines objectives and concepts covered in each lesson, describes the program, and suggests projects and follow-up activities.

All About Computers
Educational Dimensions Group, P.O. Box 126, Stamford, CT 06904. 1981. #548BD. $100 series.

Cassette. Automatic and manual. Color. Four strips with 4 cassettes. With teacher's guide. Preview available. Catalog kit. Includes: What Are Computers?; How Do They Work?; Communicating with Computers; All Kinds of Output.

Grades 4-6--Shows youngsters how computers work, what they can do, and how to communicate with them. Study and review frames at the end of each strip help reinforce ideas covered.

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At Home with the Computer: What Can It Do for You?
The Center for Humanities, Inc., Communications Park, Box 1000, Mount Kisco, NY 10549. Four filmstrips, 4 cassettes, Library Kit, Teacher's Guide. #2-0433-3040. $149.50. Sound Slide Edition. #1-0433-3040. $169.50. Video Edition (39 min). #V-0433-3040. $149.50. Grades 7 and up.

The "star" of this presentation is a real interactive computer named Breslin. This remarkable computer has been programmed to talk, to obey spoken commands, to control appliances, even to babysit. Breslin is able to detect fires with its temperature sensors, predict rain with its humidity sensors, and serve as a burglar alarm by sensing unusual household movement.

This highly entertaining program gives students a unique and interesting way to become acquainted with how computers work, what they can do and what they may be able to do in the future.

BASIC: An Introduction to Computer Programming
The Center for Humanities, Inc., Communications Park, Box 1000, Mount Kisco, NY 10549. Four filmstrips, 4 cassettes, Library Kit, Teacher's Guide. #2-6427-3040 $149.50. Sound-Slide Edition #1-0427-3040 $169.50. Video Edition (74 min.) #V-0427-3040 $279.50. (Note: Complete program on 2 videocassettes.)

The BASIC language is standard on many of the most widely available mini- and micro-computers. In this entertaining program, students learn the vocabulary of BASIC as they become familiar with simple programming techniques. The presentation then shows how programs are created, starting with analysis of the problem to be solved and preparation of a step-by-step flow chart and ending with the writing of the program statements in BASIC.

BASIC: An Introduction to Computer Programming
The Center for Humanities, Inc., Communications Park, Box 1000, Mount Kisco, NY 10549. 1981. #0427. $169.50; filmstrip format, #6427: $149.50 series.

Plastic mounts. Color. Two units each. With 80 slides and 2 cassettes. With teacher's guide. Preview available. Catalog kit.

Grades 7 Up--Explains the vocabulary of BASIC and explores simple programming techniques. Frequent pauses allow practice and review as simple BASIC commands are introduced. Shows how programs are created, from an analysis of the problem to be solved and preparation of a flow chart to the writing of the program statements in BASIC.

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BASIC for Elementary Grades, by Arnold Friedman and Elaine Friedman. Educational Activities, Inc., Filmstrip Division, P.O. Box 392, Freeport, NY 11520. #FSC 397. $97 series. Grades 4-6.

PART I--Getting Started with Computers: PRINTING--Concept of a program; arithmetic computations; the use of the semicolon and quotation marks; the BASIC commands: PRINT, END, LIST, RUN.

PART II--Computer Memory Storage: VARIABLES--Computer memory; numeric and string variables; the use of the comma for column printing; the BASIC command: INPUT.

PART III--COUNTERS--Looping concepts; the BASIC commands and statements: GOTO, FOR-NEXT, STEP, READ-DATA.

PART IV--FLOW CHARTS AND BRANCHING--Flow charts; relational operations; the BASIC commands: IF-THEN, REMARKS.

PART V--INPUT AND GAMES--Theory of games using random number generation; programming refinement.

BASIC for Microcomputers, by Arnold Friedman and Seth Friedman. Educational Activities, Inc., Filmstrip Division, P.O. Box 392, Freeport, NY 11520.

PART I--GETTING STARTED WITH THE COMPUTER--Using the computer's computational ability; the introductory steps are presented: Line Numbering, Variables, Mathematical functions, and punctuation marks. Commands illustrated are: PRINT, LET, RUN, and LIST.

PART II--MATHEMETICAL OPERATIONS--Computational programs involving more sophisticated mathematical operations are described, along with Relational Operators, and Order of operations. Programming steps include READ, DATA, INT, and GOTO.

PART III--LOOPS AND SUBROUTINES--Higher-level commands provide the basis for effective programming techniques. Commands illustrated are: IF-THEN, using relational operators, FOR-NEXT, GOSUB, RETURN.

PART IV--INTRODUCTION TO ORIGINAL PROGRAMMING--The techniques presented here provide the basis for inputing words and numbers during the operation of the program. The commands taught are: INPUT, REMARK, and STRING functions.

PART V--PROGRAMMING TECHNIQUES AND FLOW CHARTS--Development of flow charts leading to exemplary programs including games. New commands dealt with are MID$ and the random number generator. All prior techniques are utilized and illustrated.

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BASIC Programming Filmstrip, by Adrian Vance.
P.O. Box 49210, Los Angeles, CA 90049. 1983. $160.00

This two-hour filmstrip explains how computer languages work as well as how to use BASIC. Pictures, narratives and music work together to clarify concepts. The set has six sections, including All About BASIC, BASIC Algorithms, BASIC Math Functions, BASIC Variables, BASIC Branches, Loops and Subroutines and BASIC Statements.

BASIC Training
GPN, P.O. Box 80669, Lincoln, NE 68501. 1979. $379.00 Study Kit $12.50. Free preview.

Four video cassette programs, 19 to 29 minutes each. Designed for advanced eighth grade through adult levels. Deals with instruction in BASIC.

Careers in Computers, by George Ridgeway.
Educational Activities, Inc., Filmstrip Division, P.O. Box 392, Freeport, NY 11520. 1982. #FSC 393. $79 series.

These four filmstrips, aimed at high school students and young adults, discuss career opportunities including job descriptions, general outlook, experience, educational requirements, performance, characteristics, advancement, and general descriptions. It takes into account careers that need relatively little training and those that need advanced degrees.

PROGRAMMING CAREERS--programming and programmers, systems analyst, advancement to management positions such as district manager, data processing manager.

DATA PROCESSING CAREERS--data entry, assistant computer operators, computer console operators, operations manager, computer librarian.

HARDWARE DEVELOPMENT IN SERVICE CAREERS--research and development, technicians, engineers, mathematicians, computer service technicians, field engineers.

PERIPHERAL CAREERS--teaching, computer sales representatives, consumer sales, marketing, communications, technical writing consultants.

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Careers in Computer Science and Service
The Center for Humanities, Inc., Communications Park, Box 1000, Mount Kisco, NY 10549. 1982. Four filmstrips, 4 cassettes, Library Kit, Teacher's Guide. #2-0432-3040 $149.50. Sound-Slide Edition #1-0432-3040 $169.50. Video Edition (58 min.) #V-0432-3040 $149.50.

The increased use of computers has created an expanding field of opportunity in the computer-related fields of hardware, software and operations. It explores the education, training experience and aptitudes required for a variety of jobs. In on-the-job interviews, workers describe their specific occupations and discuss opportunities for advancement.

By defining such terms as hardware, software, programming and computer language, the program familiarizes students with this important field as it helps them to judge the applicability of their own talents to computer-related occupations.

Careers in Computers
Educational Activities, Inc., Filmstrip Division, P.O. box 392, Freeport, NY 11520. Four full color filmstrips, 4 audio cassettes, and a teacher's guide is $79.00.

The second filmstrip series, Careers in Computers, informs students about the many job opportunities in the high growth computer industry. The program is geared toward high school students and young adults who need to know what types of jobs are available, educational requirements, experience, and personal characteristics demanded by the job, as well as general salary descriptions, and possibility of advancement. This program not only discusses career opportunities, but is also a good introduction to the computer industry.

Careers in the Growing Field of Computer Science
Pathescope, Educational Media, 71 Weyman Ave., New Rochelle, NY 10802. 1982. #738 $65.00 set.

Cassette. Automatic and manual. Color. Two strips with 2 cassettes. With teacher's guide.

Grades 7 Up--Describes the new growth trends in programming needs, computer applications, and new technologies which are providing more and more job opportunities at all levels. Present requirements and personal attributes needed for computer-related work--from an operator to a programmer to a service technician to a manager. Men and women on the job provide first hand accounts of how to get started and chances for advancement.

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The Computer and You--An Introduction
Handel Film Corporation, 8730 Sunset Blvd., West Hollywood, CA 90039, (213) 657-8990. 1983. $310.00

This 16-minute film is a primer designed for those with no computer experience. It covers what a computer is, how it works and how it can help people in schools and at work.

Computer Awareness
Society for Visual Education, Inc., Dept. 114-81, 1345 Diverey Parkway, Chicago, IL 60614. 1981. #1516-8ATC. $125 series; strip: $18 each, cassette: $12 each, skill boosters and guide: $22.

Cassette. Automatic and manual. Color. Four strips with 4 cassettes. 60 fr., 12 minutes each with 24 skill boosters. Teacher's guide, 2 optional computer disks. Preview available. Includes: What Computers Do; How Computers Work; Everyday Computers; Introduction to Programming.

Grades 4-6--Introduces the basic components of a computer system and describes how computer languages are used to communicate with and coordinate these components. Demonstrates the use of computers in games, appliances, television, cars and other familiar situations and objects. Basic methods of computer programming are introduced.

Computer Basics
Carolina Biological Supply Co., 2700 York Road, Burlington, NC 27215 or Box 187, Gladstone, OR 97027. (800) 547-1733. 1983. $145.00

Six filmstrips and narrative cassettes. Titles include: "What is a Computer?"; "Do You Need a Computer?"; "How to use a Computer" and "What Do Computers Mean?"

Computer Careers: Jobs for the 80's
Educational Dimensions Group, Box 126, Stamford, CT 06904. 1981. #436BD. $73 set.

Grades 7 Up--Presents job opportunities in the computer field--from programmers to keypunch operators, from electronic engineers to support services like technical writing and trouble shooting. Interviews provide students with a sense of the job scope, daily routine, and training requirements.

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Computer Hardware: What It Is and How It Works
The Center for Humanities, Inc., Communications Park, Box 1000, Mount Kisco, NY 10549. 1982. Four filmstrips, four cassettes, Library Kit, Teacher's Guide. #2-0429-3040 $149.50. Sound-Slide Edition. #1-0429-3040 $169.50.

This program tackles the complex question of how a computer works. Each step in a computer's operation is examined in detail--from input, through information storage and processing, to output. The discussion includes descriptions of typical microcomputers, along with common sensing devices used at supermarkets, census bureaus, banks and utility companies. The actual processing of information in the computer's central processing unit is presented through humorous cartoons and colorful diagrams.

Computer Literacy: The First Step
Educational Dimensions Group, Box 126, Stamford, CT 06904. 1981. #1253. LC 81-730293. $146 series, $36.50 each.

Cassette. Automatic and manual. Color. Four strips with 4 cassettes. Approx. 80 fr., 20 minutes each with teacher's guide. Includes: The Inside Story; The Power of Memory; Input: Speaking the Language; Output: The Rewards.

Grades 7 Up--Students are shown how computers work, what they can and cannot do, and how to speak to and through computers. The first strip explains input, processing, memory, and output. The Power of Memory tells how computers collect and store data and instructions. Input explains how computers "read" and how to "speak" to Memory. The final strip explains how Video and Print terminals work, and explores the potential of Robot control in home and factory.

Computer Programming
Bergwall Productions, 839 Stewart Ave., Garden City, NY 11530. 1981. #075. $210 series, $42.50 each. Grades 9-12.

Cassette. Automatic and manual. Color. Six strips with 6 cassettes. Range: 60-65 fr., 12-15 minutes with teacher's guide. Preview available. Catalog kit. Includes: Getting Acquainted with Computers; Getting Acquainted with BASIC; Getting Started: Assignment and Input Statements; Getting Started: Control Statements; Getting it Together: Analysis and Program Development; From Start to Finish: Complete BASIC Programming.

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Computer Programming--BASIC for Elementary Grades
Educational Activities, Inc., Filmstrip Division, P.O. Box 392, Freeport, NY 11520. 1981. Five full-color filmstrips, 5 audit cassettes and a teacher's handbook is $97.00.

Computer Programming--BASIC for Elementary Grades is designed to instruct elementary age children in computer programming in the BASIC Language. All the conceptual presentations have been pretested successfully on a broad range of youngsters. Piloted in a special computer programming course held for elementary students, the principles and applications of the major BASIC commands and statements proved to be well within the capabilities of the average middle-to-upper elementary age child.

Computer Programming: Basic for Microcomputers
Educational Activities, Inc., Filmstrip Division, P.O. Box 392, Freeport, NY 11520. 1981. #FSC 397. $97.00 series.

Cassette. Automatic and manual. Color. Five strips with 5 cassettes. With teacher's guide. Preview available. Includes: Getting Started with the Computer; Mathematical Operations; Loops and Subroutines; Introduction to Original Programming; Programming Techniques and Flow Charts

Grades 6-12--A systematic approach to the essentials of programming computers in BASIC language. Designed for the beginner in programming, the techniques taught are universal to all BASIC dialects, and are applicable to the TRS 80, PET, Apple, and other microcomputers and terminals.

Computer Programming Errors: Debugging, by Arnold Friedman.
Educational Activities, Inc., Filmstrip Division, P.O. Box 392, Freeport, NY 11520. 1982. #FSC 372. $22.00. Grades 4-Adult

Cassette. Automatic and manual. Color. One strip with 1 cassette. With teacher's guide. Preview available.

Illustrates and explains some of the most common errors that occur when writing a computer program in BASIC. As students learn how to correct these errors, they become capable of debugging their programs. The filmstrip points out the variation among the Apple, PET, and TRS-80 microcomputers for the same error.

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Computer Software: What It Is and How It Works
Center for Humanities, Inc., Communications Park, Box 1000, Mount Kisco, NY 10549. 1982. Four filmstrips, four cassettes, library kit, teacher's guide. #2-0430-3040. $149.50 series; sound-slide format, #1-0430-3040; $169.50.

Grades 9 Up--The way in which software enables a computer to process given information is explained in this show. It describes how certain types of software guide the computer's internal operations, while others bridge the language gap between humans and computers. Simple programs in BASIC illustrate the processes of decision making, loops, and subroutines. Numerous cartoons, charts, and diagrams are used to explain these processes.

Computers
Encyclopedia Britannica Educational Corp., 425 N. Michigan Ave., Dept. 10A, Chicago, IL 60611, (800) 554-8862. 1983. Sound Filmstrip Series, $235.00

These five sound filmstrips--What Computers Can Do, How Computers Work, How to Get the Computer to Do Something, Telling the Computer What to Do and What Computers Cannot Do--break down the functions of a computer system into input, processing and output of information. Students are given an opportunity to make an actual flow chart and program under real-life conditions. The filmstrips average 12 minutes each.

Computers and the Future
Time-Life Video, Suite 1290, 1900 Avenue of the Stars, Los Angeles, CA 90067. 16 mm $3500 set/$500 each, 3/4" $1400 set/$200 each, 1/2" $1100 set/$150 each. Level: Secondary.

Combining documentary techniques with dramatic vignettes, this program explores our growing relationship with communications technologies such as interactive computers, cable television and video discs. This technology is entering our culture at a dizzying pace, and its impact may rival our transformation a hundred years ago from an agrarian society to an industrial one. The program explores the effect of this new media form on the way we live, work and play. Futurologist Peter Schwartz is host.

Computers and the New World of Work
Opportunities for Learning Inc., 8950 Lurline Ave., Chatsworth, CA 91311, (213) 341-2535. 1983. $98.00

This filmstrip teaches the skills and attitudes necessary for working with computers in a technology-based job environment. It discusses how computers work, what functions they perform, what job opportunities exist and the type and quality of skills required in the work force.

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Computers: From Pebbles to Programs
Center for Humanities, Inc., Communications Park, Box 1000, Mount Kisco, NY 10549. 1975. Three filmstrips, 3 cassettes, Library Kit, Teacher's Guide. #2-7050-3040 $119.50. Sound-Slide Edition #1-0424-3040 $219.50. Video Edition (35 minutes). #V-7050-3040 $149.50. Grades 7 up.

This program provides a fascinating picture of what computers really are. It traces both the history of calculating machines and the history of computer technology, emphasizing the continual search for faster and more efficient ways to process information. Such terms as batch processing, time-sharing, input, output, Central Processing Unit, Arthimetic/Logic Unit, Control Unit, Auxilliary Memory and compiler program are defined. The final section examines some of the operations computers can handle, such as videotape editing, traffic control and train and airplane operation.

Computers in Our Society
Encyclopedia Britannica Educational Corportation, 425 Michigan Ave., Chicago, IL 60611. 1981. #17185K. $122 series, $27 each.

Cassette. Automatic and manual. Color. Five strips with 5 cassettes. Approximately 60 fr., 12 minutes each with teacher's guide. Preview available. Includes: Computers in Everyday Life; Personal Computers in the Home; Computers in Schools and Business; The computer Workers; Computers Change Society.

Grades 6-12--Presents the pervasiveness of computers in our society, and highlights careers in the field.

Computers in the Classroom
Association for Supervision and Curriculum Development, 225 N. Washington St., Alexandria, VA 22314. 1983. Videotape available in 3/4 cassette, 1/2 beta, 1/2 VHS, or 1/2 reel format. $195 for members, $230 for non-members, $50 for five day rental, or $30 for two day preview (preview fee will be applied to purchase price).

Shows a variety of ways computers are already being used in instruction, explains computer characteristics and terminology, offers tips on choosing equipment and courseware, and suggests planning strategies for successful implementation.

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Computers, The Friendly Invasion
Walt Disney Educational Media Co., 500 S. Buena Vista, Burbank, CA 91505. (213) 840-1000. 1983. $419.00

This 19½-minute film is recommended for grades five through twelve and uses scenes from the movie TRON to show students how computers work, the tasks they can perform and the opportunities computers offer in the fields of science and art. A teacher's guide providing background information, a glossary of computer terms, suggested teaching strategy and a bibliography are all included.

Everyday Computers
Society for Visual Education, Inc., Dept. 114-81, 1345 Diverey Parkway, Chicago, IL 60614. Grades 4-6.

Introduces common computers for homes, schools and businesses.

How Computers Work
Society for Visual Education, Inc., Dept. 114-81, 1345 Diverey Parkway, Chicago, IL 60614. Grades 4-6.

Introduces major computer components.

Introduction to Computer Language: Beginning BASIC
Educational Audio Visual, Pleasantville, NY 10570. 1982. #7AA 0129. LC 81-730318. $275. Grades 7 up.

One color strip with 1 cassette: 57 fr., 9:16 min.; 10 cassettes; 3 diskettes (Apple II and Apple II Plus); 1 workbook. With teacher's guide.

This kit provides a general introduction to computer languages--differing uses, basic principles of programming, and applications. Two diskettes, the 10 audiocassettes, and a workbook provide an interactive experience in utilizing the fundamentals of programming on a microcomputer. The testing diskette allows instructors full control over students' progress. The demonstration exercises are performed on the computer with direction from the audiocassettes. The filmstrip reviews designing, coding, and debugging a program.

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Introduction to Computers: Basic Computer Background
Eye Gate Media, 146-01 Archer Ave., Jamaica, NY 11435. 1981. #TE 82111. $68 series. Grades 7-12.

Cassette. Automatic and manual. Color. Four strips with 2 cassettes, with teacher's guide. Preview available. Includes: The History of Computers; Basic Uses of Computers in Business; Practical Uses of Micro Computers; Future Developments and Uses of Computers.

Includes the development of computers up to the present, and introduces the binary system in its most simplified form. Describes the rapid changes that computer systems are making in science, medicine, business and communications.

Introduction to Computers: Basic Computer Literacy
Eye Gate Media, 146-01 Archer Ave., Jamaica, NY 11435. 1981. #TE82112. $68 series. Grades 7-12.

Cassette. Automatic and manual. Color. Four strips with 2 cassettes. With teacher's guide. Preview available. Catalog kit. Includes: Basic computer Terms; Basic Computer Operations; The Language of Computers; Introduction to Computer Programs.

Provides insight into computer input and output devices and storage devices that sheds light on how people use computers. Gives an overview of the work done by computer programmers and operators, and the special languages of computer programming. The series also shows how computers are adapted by analysts and designers to do specific jobs of solving problems for people.

Introduction to Data Processing
Educational Audio Visual, Pleasantville, NY 10570. 1981. #7KF0125. LC 81-730316. $106 series. Grades 7 up.

Cassette. Automatic and manual. Color. Three strips with 3 cassettes. Range: 45-63 fr., 12-15 minutes with teacher's guide. Worksheets. Preview available. Catalog kit.

Presents an overview of the development and uses of computers--components, functions, and basic procedures. The first strip defines the functions of computers, gives a brief history of their development, and describes some of their applications. Strip two illustrates the meaning of input, output, and processing. The final strip explains the binary number system and introduces the hexidecimal system.

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Introduction to Programming
Society for Visual Education, Inc., Dept. 114-81, 1345, Diverey Parkway, Chicago, IL 60614. Grades 4-6.

Introduces computer languages and simple programming methods.

Introduction to Systems Analysis and Programming
Educational Audio Visual, Pleasantville, NY 10570. 1981. #7KF 0216. LC 81-730317. $106 series. Grades 7 up.

Cassette. Automatic and manual. Color. Three strips with 3 cassettes. Range: 41-48 fr., 8-11 minutes. With teacher's guide. Preview available. Catalog kit.

Shows students what is involved when a business decides to use a computer for certain tasks. Provides an overview of the jobs computers do best, and how they are most frequently used in business. Some prior knowledge about computers is assumed.

Introduction to the Microcomputer Keyboard
Educational Audio Visual, Pleasantville, NY 10570. 1982. #7DA 0127. LC 82-730091. $95. Grades 7 up.

One cassette; 1 diskette (Apple II and Apple II Plus).

Introduces automatic use of the microcomputer keyboard. Useful for students with or without touch typing experience.

Little Computers ... See How They Run
GPN, P.O. Box 80669. Lincoln, NE 68501. 1980. $375.00

Eight video cassette programs of 17 to 24 minutes. Explains how small computers receive, process, store, and transmit information. Is designed for advanced eighth grade through adult.

Microcomputing Filmstrip, by Adrian Vance.
P.O. Box 49210, Los Angeles, CA 90049. 1983. $160.00

An introduction for use at all levels, including college, adult and teacher training, this filmstrip series covers how to get more out of your system. It also includes a demonstration of how to set up, use, test and maintain the Apple II Plus, its disk drives and peripherals. Included in this package are six filmstrips, six cassettes and a user's guide.

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The Mind Machines
Time-Life Video Distribution Center, 100 Eisenhower Drive, Paramus, NJ 07652. (201) 843-4545. 16mm $700, 3/4 $200, 1/2 $150, rental $65.00.

Work being done in Artificial Intelligence, a branch of computer science, has shown that within the next hundred years, smart machines may outpace their creators.

Office Information Systems
Bergwall Productions, 839 Stewart Ave., Garden City, NY 11530. 1981. #074. $97 series, $42.50 each. Grades 7 up.

Cassette. Automatic and manual. Color. Three strips with 3 cassettes. Range: 60-65 fr., 12-15 minutes with teacher's guide. Preview available. Catalog kit. Includes: Office Information Systems; Introduction to Word Processing; Word Processing; Basic Operations.

Introduces automated office systems utilizing computer technology. Describes hardware and software components of computer-based word processors.

Programming Languages: Atari Pilot
RMI Media Productions, Inc., 120 West 72nd Street, Kansas City, MO 64114. (800) 821-5480. 1983. Filmstrip $35.00, Slide set and videotape $75.00.

This presentation introduces the Pilot programming language to beginners and covers the basic Core Pilot commands required to write text programs. All commands are explained and fully demonstrated. This presentation is also available covering Turtle graphics and Apple Logo.

Switching On: Your Life in the Electronic Age
Canadian Broadcasting Corp. Distributed by Filmakers Library, 133 E. 58th St., Suite 703A, New York, NY 10022. 1981. $445. Grades 7 up.

3/4" videocassette. Color. Fifty-seven minutes. Preview available.

This overview of the computer revolution shows students that a knowledge of basic computer skills will be essential in their lives. Shows how the new electronic age will change the very fabric of society.

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Understanding Computers
Encyclopedia Britannica Educational Corp., 425 N. Michigan Ave., Chicago, IL 60611. Grades 6-12. 1981. #17184K. $122 series, $27 each.

Cassette. Automatic and manual. Color. Five strips with 5 cassettes. Approximately 60 fr., 12 minutes each with teacher's guide. Preview available. Includes: What Is a Computer?; How to Get the Computer to Do Something; What Computers Can Do; What Computers Cannot Do; Telling the Computer What To Do.

The series provides an overview of the programming process and a glossary of terms; shows that software refers to computer programs and includes operating systems, compilers, and application programs; and distinguishes some of the differences between human and computer capabilities.

Understanding the Computer
Sunburst Communications, Room VH, 39 Washington Ave., Pleasantville, NY 10570. (800) 431-1934. $99.00. Ungraded FS and Cassette.

Familiarizes students with the versatile and powerful machine that is revolutionizing our society. Uses real-life examples to demonstrate the computer's wide range of applications. Introduces student to programming basics and computer languages, and helps to prepare them for living in a computer-oriented world.

Video Programs
Educational Activities, Inc., 1927 Grand Ave., Baldwin, NY 11510, (800) 645-3739. 1983. $149.00

These two video programs are full-color videotape programs which teach the basic operation of the Apple II Plus and the TRS-80 Model III. Each tape is designed for operators with no prior computer experience. Each tape is approximately 15 minutes long.

What Computers Do
Society for Visual Education Inc., Dept. 114-81, 1345 Diverey Parkway, Chicago, IL 60614. Grades 4-6.

Introduces basic computer functions.

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STUDENT TEXTS AND REFERENCE BOOKS

Addison-Wesley's Programming Pocket Guides, by J. Shelley, R. Hunt, R. Welland, P. Ridler, and D. Watt.
Addison-Wesley Publishing Co., Inc., 1982. Grades 11-12

This series of pocket-size reference guides to the major programming languages provides concise references and reliable descriptions of the main language features. Use them as memory-joggers or reference tools.

An introduction to programming is available in this series for those who have had no programming experience.

BASIC: A Unit for Secondary School, by Donald Spenser.
Scholastic, Inc., Englewood Cliffs, NJ.

This book is designed for the teaching of BASIC computer programming to secondary students.

BASIC and the Personal Computer, by T. Dwyer and M. Critchfield.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA. Grades 9-12.

The book provides an introductory presentation of both BASIC and extended BASIC and explores the great diversity of applications possible on any microcomputer. In addition to BASIC programming, the book examines microcomputer hardware, graphics, word processing, sorting, algorithms, data structures, games, computer art, simulations, business applications, color graphics, and special interface devices.

Basic Basic: An Introduction to Computer Programming, by James S. Coan.
Hayden Publishing Co., Rochelle Park, NJ.

Basic "BASIC" Programming, by A. Peluso, C. Bauer, and D. DeBruzzi.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA. Grades 11-12.

Written for beginning students with little or no background in the computer field. Is designed to provide the information needed to learn as rapidly as possible on how to write computer programs in BASIC and how to gain the necessary skills to run programs on a remote console system.

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BASIC for Students With Applications, by M. Trombetta.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA, 1981. Grades 11-12.

This book focuses on the practical applications of problem solving in BASIC and emphasizes both algorithm development and BASIC syntax rule since they are essential to problem solving. Accessible to students with no previous computing experience, this book will appeal primarily to students taking introductory courses in BASIC or business data processing.

Basic FORTRAN IV Programming, Revised Edition, by J. Healy and D. DeBruzzi.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA. Grades 11-12.

This text was written to provide the essential information required for the reader to learn, as quickly as possible, to write computer programs in FORTRAN. Very little mathematical sophistication is required to learn FORTRAN programming, and mastery of FORTRAN opens up a large and growing range of computer applications.

The Basic of BASIC
Saddleback Educational, Inc., Montebello, CA.

Beginning activities in BASIC programming. Standard BASIC statements and commands, debugging, graphics, and simple computer games. Glossary of computer terms.

Be a Computer Literate, by Marion J. Ball and Sylvia Charp.
Creative Computing, Morristown, NJ, 1978. Grades 4-8.

The Beginner's Guide to Computers, by R. Bradbeer, P. DeBono, and P. Laurie.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA, 1982.

Computers are everywhere--at home, at work, even at school. Our life with them is inevitable, which makes learning about them so important. For people who don't know the difference between a micro and a mini, a RAM and a ROM.

A Bit of BASIC, by T. Dwyer and M. Critchfield.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA, 1980. Grades 11-12.

A short book introducing the fundamental concepts of the BASIC language.

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A Bit of Byte
Saddleback Educational, Inc., Montebello, CA.

Review of pre-programming computer literacy concepts with an emphasis on flow charting. Introduction to terms and procedures of BASIC programming. Glossary of computer terms.

Business Programming in FORTRAN IV and ANSI Fortran 77: A Structured Approach, by Asad Khailany.
Prentice-Hall, Inc., Englewood Cliffs, NJ. 456 pages. 1981.

This book is "primarily designed for students in business schools taking an introductory programming course in the Fortran language ... The text orientation also makes it appropriate for students in humanities, social science, and education," according to the preface.

Computer Alphabet Book, by Elizabeth S. Wall.
Bayshore Book, Nokomis, FL. 1979. Grades 2-4.

The Computer: An Everyday Machine, Second Edition, by E. Squire.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA. Grades 9-12.

This introductory text emphasizes a fundamental understanding of how the computer works while putting it in perspective as a "tool" which has developed in response to social needs.

Computers and Business Information Processing, Second Edition, by W. Davis.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA. 1983. Grades 11-12.

This established introductory text reflects the very latest technology in the rapidly changing computer field. The book introduces computer concepts in a clear, easy-to-read, yet technically precise manner. No prior exposure to the computer or to advance mathematics is assumed.

Computer Calling
Saddleback Educational, Inc., Montebello, CA.

An introduction to computer literacy. History, computer functions, and an introduction through activities to binary numbers and flow charting. Glossary of computer terms.

Computer Coin Games, by Joe Weisbecker.
Creative Computing, Morristown, NJ. 1979. Grades 5 up.

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Computer Consciousness: Surviving the Automated 80's, by H. D. Covvey and N. H. McAlister.

Addison-Wesley Publishing Co., Inc., Menlo Park, CA. 1980. Grades 11-12.

The book builds a computer, logically, from the smallest component up to the whole system. The authors constantly evaluate the strength, weakness, and social impact of the technology discussed.

Computer Demonstrator
Tandy Corp., for 4 and above.

A cardborad training aid and manual/workbook offer an inexpensive way for students to learn how computers work.

Computer Discovery Program
SRA Publishers, Palo Alto, CA. Grades 5-12.

Computer Discovery Program is a courseware program in computer literacy for upper elementary through senior high school. Students interact with the computer and follow text exercises in computer history, analysis and programming, hardware and software concepts, and the social and economic impacts of the computer.

The Computer is Here
Saddleback Educational, Inc., Montebello, CA.

A 50-card resource box of computer-related activities, which can be used with or without a computer. Includes puzzles and quizzes, encoding and decoding, sorting of sets, flow charting, debugging, and simple BASIC programs. Glossary.

Computer Literacy: A Hands-on Approach, by A. Luehrmann and H. Peckham.
McGraw-Hill Book Co., Navato, CA. 1982.

Features 33 hands-on lab lessons to: operate a microcomputer, load and run programs, write programs in BASIC, and debug. Includes a 66 unit textbook, teacher's resource guide, and student workbook. Is designed for classroom use with 1-16 micros. (Apple or TRS 80).

Computer Literacy: Problem-Solving with Computers, by Carin E. Horn and James L. Poirot.
Sterling Swift Publishing Company, Austin, TX, 1981. 304 pages.

This book could be used as a classroom text. Its clarity and style of presentation make it equally useful to the individual seeking a basic knowledge of computers and electronic data processing.

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Computer Programming for Kids and Other Beginners
Sterling Swift Publishing Co. Austin, TX, Elementary.

Introduces graphics, programs, loops and BASIC with practice problems, exercises and experimental questions.

Computers, by Richard W. Brown.
Viking Press Inc., New York, NY. 1976. Grades 6-8.

Computers, by Linda O'Brien.
Franklin Watts Inc., New York, NY. 1978. Grades 4-6.

Computers and Data Processing, by H. Capron and B. Williams.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA. 1982. Grades 11-12.

Over 80 pages of full-color photographs, thematically grouped into "galleries" take students on "tours" of many computer-related issues. Many varied examples and applications are woven into the text narrative.

Computers for Kids, by Sally Greenwood Larson.
Scholastic, Inc., Englewood Cliffs, NJ. 1981. Grades 4-6.

This book comes in two versions, Apple and TRS-80. Children find out how to put together a flow chart, how to write their own computer games, and draw pictures that move.

Computers In Your Life, by Melvin Berger.
Thomas Y. Crowell, New York, NY. 1981.

This book is designed to take upper elementary and secondary students behind the scenes for a look at many diverse computer installations. Computers in health, communication, travel, business, industry, education, police work, recreation, and government are explored, grades 3-6.

Creative Kids Guide to Home Computers, by Fred D'lanazio.
Doubleday & Co., Inc., Garden City, NY. 1981. Grades 5-8.

"Data Processing Textbooks", by Gary B. Shelly and Thomas J. Cashman. Anaheim Publishing Company, Fullerton, CA, Introduction to Computers and Data Processing, Introduction to BASIC Programming, Introduction to Computer Programming Structured COBOL, Advanced Structured COBOL Program Design and File Processing, Computer Programming RPG II, Introduction to Computer Programming RPG, Business Systems Analysis and Design, Introduction to Computer Programming IBM System/360 Assembler Language, IBM System/360 Assembler Language Workbook, IBM System/360 Assembler Language Disk/Tape Advanced Concepts, Introduction to Computer Programming System/360 PL/1, and Introduction to Flowcharting and Computer Programming Logic.

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Experiencing BASIC, Duplicating Masters.
Saddleback Educational, Inc. Montebello, CA. Grades 5-9.

Supplement for BASIC or BASIC programming courses. Includes 24 pages of worksheets and tests.

Exploring With Computers, by Gary G. Bitter.
Julian Messner, New York, NY. 64 pages. Ages 9 to 12.

A look at the world of computers--their history, how they work, their uses and misuses with section on careers including activities. Illustrated with photographs, drawings, diagrams.

Exploring With Computers, Pupil Text, by Gary G. Bitters.
Julian Messner, New York, NY. 1981. 64 pages.

Bitter, a math educator, has written this text which includes a comprehensive historical development of the computer to its fourth generation.

Getting Down to BASIC
Micromedia, Woodcliff Lake, NJ. Grades 7-12.

A 64 page workbook explains BASIC commands, statements, and beginning programming. Is designed for hands-on use with Apple, TRS-80, or PET.

A Guide to BASIC Programming, Second Edition, by D. Spencer.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA. Grades 11-12.

The aim of this book is to teach the reader to solve problems with a computer using the BASIC programming language. The text covers both business and scientific areas. The average reader should be able to learn to write simple programs in BASIC with about five to ten hours of formal training and an equal amount of time spent studying the examples and working exercises.

A knowledge of intermediate level algebra and trigonometry is required.

Home Computers, by Scott Corbett.
Little, Brown & Co., Waltham, MA. 1980. Grades 5 up.

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Information Processing, Marilyn Bohl.
Science Research Associates Inc., Chicago, IL. 507 pages, third edition, 1980.

The 17 chapters are on An Introduction to Data Processing, An Electronic DP system, Data Representation, Data-Recording Media, I/O Devices, Storage Devices, The CPU, Computer Operations, EDP Systems, Developing a Program, Programming Techniques, Programming Languages, Operating Systems, Files and Data Bases, Advanced Systems Concepts, Data Communications, and Computer Security and Controls.

Input/Output
Saddleback Educational, Inc., Montebello, CA.

A board game for two to four players in which movement around the board is related to various parts of a computer program. No prior computer knowledge is required. Players interact with each other as well as the board. Self directing--self correcting. Game includes instruction booklet.

An Introduction to Programming and Application with BASIC, by T. Hull and D. Day.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA. Grades 11-12.

This book is organized into three sections. Part 1: Emphasizes the use of a convenient pseudo-code for describing algorithms, thereby replacing flow-charting. Part II transcribes these algorithms in BASIC. A summary of BASIC concludes this section. Part III is a generous sampling of applications in a wide variety of areas with emphasis on the top-down development of well structured correct programs.

An Introduction to Programming and Applications with FORTRAN, by T. Hull and D. Day.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA. Grades 11-12.

The primary purpose of this book is to explain programming and the use of computers in solving problems. Emphasis is placed on the use of a convenient pseudo-code for describing algorithms, rather than on the use of flow charts, and on the careful transcribing of these algorithms in FORTRAN.

Meet the Computer, by Bruce Lewis.
Dodd, Mead & Co., New York, NY. 1977. Grades 4-5.

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The New Step by Step I, II, III
Saddleback Educational, Inc., Montebello, CA. 1983. Grades 7-12.

These courses for computer literacy consist of workbooks, disks, and audio cassettes for ease of instruction. Are designed for use with the Apple (48K). Level I is also available for PET and TRS-80.

PASCAL for "BASIC" Programmers, C. Seiter and R. Weiss.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA. 1982. Grades 11-12.

Using UCSD (the PASCAL used on the Apple II and other popular microcomputers), the authors contrast the two languages and show the transition of BASIC programming concepts to PASCAL. They also introduce BASIC users to the power of structured programs with PASCAL and give examples from important application areas.

PASCAL From BASIC, by P. Brown.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA. Grades 11-12.

Teaches the reader to think and program in the structured environment of one of the fastest growing programming languages, without having to relearn the skills already acquired from BASIC.

Problem Solving and Structured Programming in BASIC, by E. Koffman and F. Friedman.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA. Grades 11-12.

This book introduces the principles and techniques of structured programming for solving problems on the computer with the use of the BASIC programming language. It bridges the gap between books that stress problem-solving approaches divorced from implementation and language considerations, and programming manuals that emphasize the opposite.

Problem Solving and Structured Programming in FORTRAN, Second Edition, by F. Friedman and E. Koffman.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA. 1981. Grades 11-12.

This text is designed for a one-semester, first course in computer programming and introduces the techniques of structured programming at a very early state in the development of a student's programming skills.

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Problem Solving and Structured Programming in PASCAL, by E. Koffman. Addison-Wesley Publishing Co., Inc., Menlo Park, CA. 1981. Grades 11-12.

This introductory text to programming in PASCAL provides a disciplined approach to problem solving. Three basic phases emphasized in the text are: (1) the analysis of the problem, (2) the step-wise specification of the algorithms, and (3) language implementation of the problem. Proper programming is emphasized on program-style boxes which discuss specific style features.

Problem-Solving Principles For Basic Programmers: Applied Logic, Psychology, and Grit, by William E. Lewis. Hayden Book Company, Rochelle Park, NJ. 173 pages. 1981.

Lewis, a systems programmer for IBM in Arizona, has written a book that teaches how to solve a few non-programming problems along the way. Although some of the prescriptions are exhortations to get your head straight, they're all necessary to the author's principle of providing all the help he can.

This book, which also comes in FORTRAN, PASCAL and INTERLINGUA versions at the same price, "consists of three interwoven conceptual threads: general problem-solving, program problem-solving, and the influences of psychology on the overall problem-solving process," according to the back cover.

The Programmer's Book of Rules, by George Ledin Jr. and Victor Ledin. Lifetime Learning Publications, division of Wadsworth Publishing Co., Belmont, CA. 256 pages. 1979.

PBR, as the back cover nicknames this book, is a digest of 272 "essential" rules, grouped into 15 chapters. According to the publisher, it covers: knowing the client's needs and solving their problems, choosing the right language for their job, program layout and displaying program output, step-by-step program procedures, encoding and debugging procedures, evaluating the program's performance, and references to latest literature by leading authorities.

Programming in Basic for Personal Computers, by David L. Heiserman. Prentice-Hall Inc., Englewood Cliffs, NJ. 344 pages. 1981.

The first four chapters present one of the slowest and most careful introductions to the basics of Basic available, with 96 pages devoted to PRINT, LET, RUN, END, INPUT, GOTO, and looping with IF/THEN and FOR/TO/NEXT.

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The remaining ten chapters get into formatting hints, programming shortcuts, ON/GOTO, RND, GOSUB/RETURN, subroutines, functions, logic operators, strings, READ/DATA, and arrays.

Even when discussing multidimensional arrays in the last chapter, the author explains everything in detail. This is a text for learning Basic by yourself.

Programming in FORTRAN IV, by W. Schallert and C. Clark.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA. Grades 11-12.

The FORTRAN presented is consistent with the new ANSI standard, FORTRAN '77 (ANSI FORTRAN X3.9--1978).

The material is divided into fourteen instructional chapters. Each chapter is equivalent to a week's classroom work. A fifteenth chapter is an extensive programming project. Every chapter contains objectives, instruction, examples, review exercises, and practice problems.

Programming Primer: A Graphic Introduction to Programming with BASIC and PASCAL, by R. Taylor.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA. 1982. Grades 11-12.

Is for educators who want their students to learn the principles underlying all programming. It teaches the programming process through FPL (First Programming Language). FPL is graphically oriented.

Spotlight on Computer Literacy, by Ellen Richman.
Random House, New York, NY. Jr. High.

This worktext is divided into three sections and is accompanied by a teacher's manual with instructional objectives, new vocabulary, chapter notes and exercise answers.

Story of Computers, by Donald D. Spencer.
Camelot Publishing Co., Ormond Beach, FL. 1977. Grades 4-9.

Teaching Computer Programming to Kids and Other Beginners
Sterling Swift Publishing Co., Austin, TX. Elementary.

This text offers suggested methods and activities for teaching programming. Includes overhead transparency masters for teaching how computers process information, flowcharting, computer design and programming.

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32 Basic Programs for TRS-80 (Level II) Computer, by Tom Rugg and Phil Feldman.
Dilithium Press, Forest Grove, OR. 282 pages. 1980.

For each of the 32 programs, the authors provide sections on Purpose, How to Use it, Sample Run (photographs of the screen, usually), Program Listing, Easy Changes, Main Routines (what the various parts of the program do), Main Variables, and Suggested Projects. The listings and runs are all printed quite clearly.

Using Computers in Mathematics, by G. Elgarten, A. S. Posamentier and S. Moresh.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA.

This unique text solidifies and extends mathematics concepts by using the computer as a tool for solving problems. It helps students learn the fundamentals of programming in BASIC and reinforces their understanding of mathematics. Teachers with little or no computer background can learn the material and simultaneously teach the course.

Visual Masters for Teaching BASIC Programming, by Donald Spenser.
Scholastic, Inc., Englewood Cliffs, NJ.

Sixty visual masters to help teach BASIC programming.

What Can She Be? A Computer Scientist, by Gloria Goldreich.
Lothrop, Lee & Shepard Books, New York, NY. 1979. Grades 4-6.

Why Do You Need A Personal Computer?, by Lance A. Leventhal and Irvin Stafford.
John Wiley & Sons, Inc., New York, NY. 287 pages. 1981.

The eight chapters are: Your Own Computer, Components of a Computer, Introduction to Basic Programming, How To Write a Program, Peripherals, Interfacing, Computer Operation and Maintenance, and Selecting a Computer.

Seven appendices include a glossary, codes, electrical components (for the kit-builder), interface standards, magnetic-recording techniques, TV-signal standards, and standard flow chart symbols.

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Word Processing in the Modern Office, Second Edition, by P. Cecil.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA. 1980. Grades 11-12.

This textbook on word processing is designed for courses in office procedures, advanced typing skills, and transcribing skills as well as word processing systems and procedures.

Your Home Computer, by James White
Dymax, Inc., Menlo Park, CA. 1977.

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BOOKS AND PAMPHLETS

An Agenda For Action: Recommendations For School Mathematics of the 1980's
Published in 1980 by the National Council of Teachers of Mathematics, Inc. (NCTM), 1906 Association Drive, Reston, Virginia 22091.

Eight recommendations are made with a rationale and recommended actions. Recommendation three states "mathematics programs must take full advantage of the power of calculators and computers at all grade levels."

Apple PASCAL: A Programming Guide, by Tucker, Holt, Reinehart and Winston.
New York, NY, 1982.

An introduction to the PASCAL programming language and its applications using the Apple.

Are You Computer Literate?, by Billings and Moursund.
Scholastic, Inc., Engelwood Cliffs, NJ.

An introduction to the computer through its history and evolution.

A to Z Book of Computer Games, by McIntire.
BMI Educational Services, Dayton, NJ.

Fully documented programs designed to illustrate the fine points of programming.

BASIC from the Ground Up, by Simon.
BMI Educational Services, Dayton, Ohio.

Covers each of the BASIC statements with exercises and problems.

BASIC Made Easy: A Guide to Programming Micros and Minis, by Cassel and Swanson.
BMI Educational Systems, Dayton, Ohio.

Assumes no prior experience and covers basic concepts.

Be A Computer Literate, by Marion J. Ball and Sylvia Chase.
Creative Computing Press, Morristown, NJ. 1977.

Provides methods of writing programs and glossary of terms.

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Beginner's Guide/Computer Logic, by Stapelton.
BMI Educational Systems, Dayton, Ohio.

Explains decimal and binary-coded number systems and how they are used. The basic logic functions and circuits of the computer are explained.

Beginner's Guide/Microprocessing, by Gilmore.
BMI Educational Systems, Dayton, Ohio.

This step-by-step procedure assumes no prior knowledge.

Beginning with BASIC
Saddleback Educational, Inc., Montebello, CA.

Sixty cards introduce BASIC programming for beginners.

Career Blazers: Career Guide for Word Processors, by Lewis.
BMI Educational Systems, Dayton, Ohio.

Provides information on job possibilities within the field.

The Computer Age: A Twenty-Year View, edited by Michael L. Dertouzos and Joel Moses.
MIT Press, Cambridge, MA. 507 pages. 1979.

This look into the next 20 years of computer development and the potential impact consists of contributions by 20 computer authorities.

Computer Applications in Instruction: A Teacher's Guide to Selection and Use, by Judith B. Edwards, et. al.
Time Share Corp., Hanover, NH. 1978.

A good overview of computer applications with lots of examples and diagrams. Not detailed enough in any area but a good start.

Computer Applications in Reading, 2nd Edition, by G. E. Mason, J. S. Blanchard, and D. B. Daniel.
International Reading Association, Newark, DE. 1983.

Computer Careers Handbook, by Winkler.
BMI Educational Systems, Dayton, Ohio.

An insider's view of the field. Examines job trends and requirements.

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Computer Consciousness: Surviving the Automated 80's, by Covvey and McAlister.
Scholastic Inc., Engelwood Cliffs, NJ.

Covers every major aspect of computer functions, potential, limitations, and probable effects upon our culture.

The Computer Image; Applications in Computer Graphics, by Greebert, Marcus, Schmidt and Gorter.
Cole Supply, Houston, TX.

Explores the latest developments in computer graphics.

The Computer In The School: Tutor, Tool, Tutee, by Robert P. Taylor, Editor.
Teachers College Press, Columbia University, New York, NY. 1980. 280 pages.

A careful selection of seminal articles written by the leading computer scientists working on the applications of computer technology for instructional purposes. This book is designed to provide teachers, curriculum specialists, and administrators at the school and college levels with a basic understanding of the potential and actual uses of the computer in education. Theoretical and practical issues are discussed in detail, but presented in a writing style that novices in the field can understand.

Computer Literacy: Problem Solving with Computers, by Horn and Poirot.
Scholastic, Inc., Engelwood Cliffs, NJ.

The content of this book ranges from history of computing, problems addressed through computing, applications of computer technology to the effects technology is having upon our lives.

Computer Programming for the Complete Idiot, by Donald McCunn.
Design Enterprises of San Francisco, San Francisco, CA. 128 pages.

Computer Programming in the BASIC Language, 2nd Edition, by Neal Golden.
Harcourt Brace Jovanovich, New York, NY. 1981.

Teaches how to write and execute programs. Access to a computer is necessary.

Computer Programming the Easy Way, by Downing.
BMI Educational Systems, Dayton, Ohio.

An introduction to computer language and programming.

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Computers and Education, by James L. Poirot.
Scholastic Inc., Engelwood Cliffs, NJ.

Explores the impact of micro-computing on education.

The Computers Are Coming, by Irv Brechner.
Irv Brechner, Box 453, Livingston, NJ 07039. 94 pages. 1981.

"It's a basic, first book for people looking to get into computing and who have no prior experience," says the author in his letter. "In very easy to understand language and a tongue-in-cheek style, the book shows how computers work, as well as how they'll affect everyone's life."

Computers for Everybody, by J. Willis and M. Miller.
Dilithium Press, Beaverton, OR. 1981. (ERIC Document Reproduction Service No. ED 208 869; from Dilithium Press, Beaverton, OR.)

Includes a guide to buying a microcomputer and advice on using it in business applications, and describes the more popular computers on the market, common programming languages, and how computers work. Bibliographies and directories, book publishers, and magazines are listed for further reading.

Computers for People, by Jerry Willis and Meri Miller.
Dilithium Press, P.O. Box 606, Beaverton, OR. 1982. 200 pages.

Microcomputers are showing up everywhere, and everyone feels the pressure to become "computer literate." Computers for People provides a single source for a large variety of introductory information along with attractive color photographs.

The authors state that they wrote for the beginner who wants to know four things: what computers can do today, what in particular a computer can do for you, how to use a computer, and how to select the computer and accessories required for the applications that interest you. Willis and Miller felt that this could best be accomplished by selecting one computer to use as an example throughout the book. They selected the Atari computer because of its "friendliness" and graphics capabilities. Obviously, this simplified the illustrations needed and helped keep the presentation clear. Unfortunately, it means that the book offers a highly biased view of the world of microcomputers. While the content and technical quality are good, this bias may limit the book's utility.

The authors accomplish their four goals: the book provides a good--albeit biased--general introduction for the novice. It also organizes important information for the experienced user. The clear explanations should help the reader better understand the operation and use of microcomputers. References to various periodicals, toll-free numbers, and the like make the book even more useful.

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The value of the book could have been increased with greater emphasis on the advantages of other microcomputers, more references to the abundant software available for the Apple and Radio Shack units, and greater stress on the need to seek out owners of various microcomputers before making a purchase.

Overall, the book will be a valuable aid in establishing computer literacy as long as the reader takes seriously the caution that the Atari is merely used as one example and that it is not the only answer to every microcomputer need.

Reviewed by Al P. Mizell, Director of Instructional Services, Nova University, Ft. Lauderdale, FL 33314.

Computers in Education: A Practical Guide
Addison-Wesley, Reading, MA. 1982.

An excellent first book for educators. Included are examples of applications, evaluation criteria, and implementation strategies. This book is part of a series that will treat evaluation issues in various subject areas, such as reading, math, and administration.

Computers in Language Studies, by J. J. Turnbull.
The National Computing Center, London, England. 1973.

Computers in Mathematics, edited by David Ahl.
Scholastic Inc., Engelwood Cliffs, NJ.

A huge collection of ideas (problems, puzzles and programs) for using computers in mathematics.

Computers in Mathematics: A Sourcebook of Ideas, edited by David H. Ahl.
Creative Computing Press, Morristown, NJ. 1979.

According to the back cover, this collection of 77 articles from Creative Computing is a sourcebook of ideas for using computers to learn about mathematics.

Computers in Science and Social Studies
EMC Publishing, Changing Times Ed. Services, St. Paul, MN.

Over 40 comptuer-oriented articles on the physical and social sciences make this an ideal book for high school students. Topics include social studies, psychology, chemistry, biology, physics, health, ecology, astronomy, history, economics and geography. Includes games, programs and brief tutorials.

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Computers in Teaching Mathematics, by P. Kelman et. al.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA. 1982.

Takes a practical approach to the issues math teachers will face in integrating computer-aided instruction into the math curriculum on the secondary level--from deciding the basic location of the computer to evaluating the range of software available.

Computers in Your Life, by Melvin Berger.
Thomas Y. Crowell, Pub. 1981.

A book designed for students who are interested in the impact of computers in daily life and various occupations.

Computers, Teaching and Learning, by Willis.
BMI Educational Systems, Dayton, Ohio.

For educators interested in the educational applications of the computer.

Consumer's Guide to Personal Computing and Microcomputers, by Stephen Freibergere and Paul Chew, Jr.
Hayden Book Co., Inc., Rochelle Park, NJ. 1978.

Courseware in the Classroom. Selecting, Organizing, and Using Educational Software, by A. Lathrop and B. Goodson.
Addison-Wesley Publishing Co., Inc., Menlow Park, CA. 1983.

This book is a guide to selecting and using microcomputer instructional software in the classroom, and it includes an extensive catalog of recommended programs. It presents the computer as a dynamic aid in the classroom, covering various types of available courseware, with criteria for evaluation. In addition, it discusses the organization and maintenance of a courseware library, copyright regulations, and sources of courseware reviews.

Elements of Structured COBOL Programming, 2nd Edition, by Price and Olson.
Holt, Rinehart and Winston, New York, NY. 1982.

An introduction to COBOL programming with exercises and sample programs.

The First Book of Microcomputers, by Robert Moody.
Hayden Book Co., Inc., Rochelle Park, NJ. 1978.

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Fun With Microcomputers and BASIC, by Donald D. Spencer.
Scholastic Inc., Englewood Cliffs, NJ.

A fun introduction to the world of BASIC programming.

Fundamentals of Microprocessors and Microcomputers, by Daley.
Holt, Rinehart and Winston, New York, NY. 1983.

Includes interfacing techniques and comparisons of most micros.

A Guide to Instructional Microcomputer Software and **A Guide to Microcomputers**, by Shirley Douglas and Gary Neights.
Pennsylvania Department of Education, reprinted by Connecticut Department of Education. 1980.

Excellent introductions with step-by-step guidelines for setting up microcomputer-based instructional systems.

Guide to Microcomputers, by F. J. Frederick.
Association for Educational Communications and Technology, Washington, D.C., ERIC Clearinghouse on Information Resources, Syracuse, NY. 1980. (ERIC Document Reproduction Service No. ED 192 818; also available in PC from AECT Publication Sales, 1126 16th Street N.W., Washington, D.C. 20036.

A comprehensive guide to microcomputers which discusses their general nature; computer languages; operating and compatible systems; special applications and accessories; service and maintenance; computer assisted and managed instruction; graphics; time and resource sharing; potential instructional and media center applications; and an extensive resource list.

Guidelines for Evaluating Computerised Instructional Materials
National Council of Teachers of Mathematics, Reston, VA. 1981.

Hello, Mr. Chips! Computer Jokes and Riddles, by Ann Bishop.
E. P. Dutton Co., 1982.

A delightful way to feel at ease with computer terminology.

How to Buy and Use Minicomputers and Microcomputers, by William Barden.
Howard W. Sams & Co., Inc., Indianapolis, Indiana. 1977.

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Informational Technology and Its Impact on American Education
Office of Technology Assessment, Washington, D.C. December 1982.

A comprehensive assessment of electronic technology advances, implications for economic growth, human capital and education. Seven case studies describe on-going uses of computers in schools located in the Northeast, Midwest, South, West, and Far West regions of the United States. Studies cover a variety of instructional uses of computers; computer literacy; CAI-CMI; and tools for learning in the content areas.

An Introduction to Computers and Computing, by Jean B. Rogers.
I.C.C.E., University of Oregon, Eugene, OR. 1981 (booklet).

Introduction to Computers in Education for Elementary and Middle School Teachers, by David Moursund.
International Council for Computers in Education.

This 8½ x 11, 96-page book, published Fall 1981, is a slight expansion of materials that first appeared in "The Computing Teacher". It is designed for self-instruction or for a formal inservice or preservice course for teachers. It contains an in-depth treatment of teaching about and teaching using computers at the elementary and middle school levels. The book includes a very large number of activities that can be used at this educational level.

An Introduction to Microcomputers, Vol. I, Basic Concepts, by
Adam Osborne.
Adams Osborne & Associates, Inc., Berkley, CA. 1980.

Introduction to Problem Solving with BASIC
Dillman, Holt, Rinehart and Winston. 1982.

An introduction to the BASIC programming language with emphasis on the top-down design and structured programming techniques.

Introduction to Programming with ESP and PASCAL
Tucker, Holt, Rinehart and Winston, New York, NY. 1983.

Covers concepts of program design and statements. Introduces "Eight Statement PASCAL".

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Introduction to TRS-80 Level II Basic and Computer Programming, by Michael P. Zabinski.
Prentice-Hall Inc., Englewood Cliffs, NJ. 198 pages. 1980.

The ten chapters are: Your TRS-80 Computer, Specifying Information, Computer Programs, Decisions, Looping, Input-Output, Library Functions, Subroutines, Graphics and Strings. Three appendices provide Error Messages, Reserved Words, and a Basic Glossary.

Learning with Computers, by Alfred Bork.
Digital Press, Bedford, MA. 1981. 304 pages.

The work is based on papers written for varying audiences during the past 10 years, reflecting the work of the Physics Computer Development Project and the Educational Technology Center at Irvine, California.

Seven chapters attempt to place related articles together. As the author says in the introduction, "It is inevitable that in a collection such as this, compiled from previous papers, there will be repetition." Many of the concepts are dated or only peripherally related to microcomputers.

Reviewed by James M. King, assistant professor of media at the University of Georgia, Athens, GA 30602.

The Little Book of BASIC Style, by John Nevison.
Scholastic Inc., Englewood Cliffs, NJ.

The author offers nineteen rules of style that improve programming with a minimal exposure to the BASIC language.

LOGO: An Introduction, by Bennett.
BMI Educational Systems, Dayton, Ohio.

Easy-to-read and written in simple terms for teachers and students who have little or no knowledge of LOGO or computers. With its open-ended, non-technical style that won't scare students or bog them down with details.

The Making of the Micro: A History of the Computer, by Christopher Evans.
Van Nostrand Reinhold Co., New York, NY. 1981. 116 pages.

Starting with the abacus, and using dozens of photographs and drawings, this book explores Napier's Bones, the slide rule, Pascal's calculator, Leibniz's calculator, Babbage's engines, the Burroughs adding machine, Hollerith's tabulator, the MIT differential analyzer, etc.

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Meet the Computer: Beginning Topics
Sunburst Communications, Room VH, 39 Washington Ave., Pleasantville, NY 10570. (800) 431-1934. $29.00 per set for Apple, Pet, TRS-80, or Atari. Grades 4 and up.

An exceptional how-to program for students and teachers who want to develop computer literacy from the beginning or simply brush up on their computer skills. Color-coded activity folders teach BASIC programming statements and commands. Each folder covers a specific aspect of programming such as graphics, the PRINT statement, IF THEN statements. Includes reference folders for programmers, reproducible graphs and charts for plotting graphics and keeping records, programmer's guide and other activities.

Meet The Computer: Intermediate Topics
Sunburst Communications, Room VH, 39 Washington Ave., Pleasantville, NY 10570. (800) 431-1934. $35 set. Grades 5 and up.

Sequel to Meet the Computer: Beginning Topics. This set of color-coded activity folders gives easy-to-follow, step-by-step instruction on how to use a variety of intermediate functions, commands and statements in TRS-80 Level II BASIC. Each folder covers a single concept, hands-on examples and exercises provide practice on the computer and show how the statements or commands work. Concepts include random numbers, special functions, arrays, varying input forms and graphics. Excellent for learning programming or as a reference for more advanced programmers. An extensive programmer's guide provides answers to the exercises and gives suggestions for classroom use. Meet the Computer: Beginning Topics or similar BASIC programming experience is a prerequisite.

Microcomputer Graphics, by R. Myers.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA. 1982.

This book provides the essential mathematics and programming techniques for computer graphics. The programs are written in BASIC, but many are adaptable to other languages.

Microcomputer Primer, by Mitchell Waite and Michael Pardee.
2nd Edition, Bobbs-Merril Co., Inc., Indianapolis, IN. 1980.

Microcomputer Use and Software Design
Saddleback Educational, Inc., Montebello, CA.

Shows how to introduce lessons to the keyboard, strategies to implement computer lessons and how to design your own software.

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Microcomputers in Education Conference Proceedings

A 340-page book including over 30 articles by educational computing experts who presented papers at a January 1981 conference hosted by The College of Education at Arizona State University. The articles include: "Using Computers with Blind and Deaf Children"; "Managing Instruction with a Micro." Dr. Gary Bitter, Arizona State University, Tempe, AZ.

Microcomputers in Education: An Introduction, by Adeline Naiman. Published jointly by Northeast Regional Exchange, Chelmsford, MA, and Technical Education Research Centers, Cambridge, MA. 1982.

Was written to inform novices about the educational use of microcomputers. It deals with issues of concern to teachers and school districts considering the purchase of microcomputers--what to look for, the kinds of uses possible in schools, etc.

The Micro Millenium, by Christopher Evans.
Washington Square Press, NY. 1979. 297 pages.

In reviewing this book, Nola Sheffer states that it is very readable in its style, and could be placed on reading lists for high school as well as college students.

The main focus of the book is the impact that computers will be having on our lives. In his introduction, Evans compares the Computer Revolution to the Industrial Revolution, claiming that the Computer Revolution will do for brain power what the Industrial Revolution did for muscle power. Like the Industrial Revolution, says Evans, the Computer Revolution will have an impact on all aspects of man's life, and in a short span of time.

In developing this theme, the book is divided into sections: the history of computers; the present state of events; and the future. There is also a section on intelligence; the issue of whether or not machines can think; and the possibility of ultra-intelligent machines.

Mindstorms: Children, Computers, and Powerful Ideas, by Seymour Papert.
Basic Books, Inc., New York, NY. 1980.

My Friend the Computer, by Jean Rice.
Scholastic Inc., Englewood Cliffs, NJ.

This paperback introduces computers, their uses and workings in language kids can understand.

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My Students Use Computers, by B. Hunter.
Reston Publishing Company, Reston, VA. 1983.

An outgrowth of the K-8 computer literacy curriculum development project funded by the National Science Foundation. Provides a comprehensive listing of curriculum objectives and lesson plans developed by teachers participating in the Computer Literacy Project.

Nailing Jelly To a Tree, by Jerry Willis and William Danley Jr.
Dilithium Press, Beaverton, OR. 1981. 250 pages.

"Learning about software is a lot like nailing jelly to a tree. Software is nebulous, and difficult to get a firm grip on," states the preface. The emphasis of the book is on learning to use the thousands of programs that are currently available.

101 Apple Computer Programming Tips and Tricks
EMC Publishing, Changing Times Ed. Services, St. Paul, MN.

Hints, secrets, shortcuts and easy to follow directions on how to handle routine programming chores quickly.

101 Atari Computer Programming Tips and Tricks
EMC Publishing, Changing Times Ed. Services, St. Paul, MN.

Hints, secrets, shortcuts and easy to follow directions on how to handle routine programming chores quickly.

Owning Your Home Computer, by Robert L. Perry.
Everest House, New York, NY. 1980. 224 pages.

Owning Your Home Computer is a helpful guide for selecting a home computer and for understanding companion areas such as networking, videotext, and help for the handicapped.

PASCAL
EMC Publishing, Changing Times Ed. Services, St. Paul, MN.

Features and applications of PASCAL are presented with checklists, questions and problems.

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PASCAL: A Problem Solving Approach, by Koffman.
Cole Supply, Houston, TX.

Covers all aspects of UCSD PASCAL while helping beginners and advanced programmers develop their skills.

PCC's Reference Book of Home Computing, by Dwight McCabe, Editor.
People's Computer Company, Menlo Park, CA. 1977.

People and Computers: Who Teaches Whom?, by Henry Olds, et.al.
Education Development Center, Inc., Newton, MA. 1980.

A concise descriptive and explanatory document that should be read by educators who want to work with computers. Powerful theoretical framework, methodology, and insights derived from research.

Personal Computers and Education: the Challenge to Schools, by James A. Levin and Yaakov Kareev.

An overview of the subject. The 63-page report begins by covering the history of computers in education, then moves on to cover many facets of computers in schools. The report is number 98 of the CHIP (Center for Human Information Processing) series, and is available through the Library Loan Service of UCSD, San Diego, CA 92093.

PET BASIC, by Zamora, Scarvie, and Albrecht.
Scholastic Inc., Engelwood Cliffs, NJ.

Can be used to train your PET at home or in school.

Picture This! An Introduction to Computer Graphics for Kids of all Ages, by D. Thornburg.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA. 1982.

Here's a book that explores "turtle graphics geometry" on an Atari microcomputer using the computer language PILOT. The reader gains an understanding of geometry and graphics while learning to use the computer creatively.

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Picture This Too! An Introduction to Computer Graphics for Kids of all Ages, by D. Thornburg.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA. 1982.

For beginning programmers who want an introduction to computer graphics on the Apple II using the PILOT language. This text illustrates turtle geometry, elementary programming, and how to use the computer creatively.

Priorities In School Mathematics: Executive Summary of the Prisin Project
Published in 1981 by NCTM.

This report summarizes the results of an extensive survey of professional and lay people, of particular note are the reactions and attitudes to computer use in the schools.

Problems for Computer Solution, by Rogowski.
BMI Educational Systems, Dayton, Ohio.

Presents 90 mathematical and science problems.

Programming Anomation and Graphics
Saddleback Educational, Inc., Montebello, CA.

Sixty cards introduce programming anomation and graphics for the Apple.

Running Wild: The Next Industrial Revolution, by Adam Osborne.
Osborne/McGraw Hill, Inc., Berkley, CA. 1979.

An insider's look at how microcircuits are changing our lives.

School Administrator's Introduction to Instructional Use of Computers, by David Moursund.
I.C.C.E., Eugene, OR. 1980 (booklet).

Science and Engineering Education for the 1980's and Beyond
ED 193 092, ERIC, prepared in 1980 by the National Foundation and the Department of Education.

This report to the President of the United States documents the decline in science education in the U.S. It also projects the manpower needs in the next decade and concludes that there will be a severe shortage in computer professions.

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Secret Guide to Computers, by Russell Walter.
SCELBI Computer Consulting, Inc., Elmwood, CT. 1980.

The Small Computer in Small Business: A Guide to Selection and Use, by Brian R. Smith.
Stephen Greene Press, Brattleboro, VT. 1981. 154 pages.

"Smith's book is geared toward the small-business manager who needs a primer in order to be able to deal intelligently with computer vendors," according to the letter accompanying this book.

So You Are Thinking About a Small Business Computer by the staff of Computing in Your Business.
Canning Publications Inc., Vista, CA. 1980. 104 pages.

This book is "especially suitable," according to the letter accompanying it, for "(1) small business owners and managers with limited or no previous experience who are in the process of selecting their first computer; and (2) computer professionals whose friends are asking them for help in selecting a small computer."

The ten chapters cover How a Computer Can Help You, How Computers Work, Hardware, Software, Vendors, The First Step--Familiarization, Selecting a Complete System, If Custom Programming is Needed, Using a Consultant, and What the Future Holds.

Taming Your Computer: A Guide for Business and Professional People, by Jerome Kanter.
Prentice-Hall Inc., Englewood Cliffs, NJ. 1981. 254 pages.

This is a revised and updated edition of A Management Guide to Computers, published in 1977 by Honeywell Information Systems, where the author is Director of Planning and Consulting for National Industry Operations.

The nine chapters are: Introduction to Computers, Uses and Applications of Computer Systems, Selecting and Implementing Computer Applications, Mini/Micro Mania, Understanding Software and Programming, Computer-Aided Decision Making, Management Information Systems, Computer-Based Teleprocessing Systems, and Future Use and Growth of Computers. A 2½-page bibliography is included.

Teachers Guide to Computers in the Elementary School
I.C.C.E., Department of Computers and Information Services, University of Oregon, Eugene, OR. 1980 (booklet).

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Test Your Computer IQ, by Munzert.
BMI Educational Systems, Dayton, Ohio.

Tests ability and provides answers and suggestions for developing and refining abilities.

Understand Computers Through Common Sense, by Greenblatt.
BMI Educational Systems, Dayton, Ohio.

How computers work and what they do.

Using Computers to Enhance Teaching and Improve Teacher Centers, by Barbara R. Sadowski and Charles Lovett, Eds.
University of Houston, Houston, TX. 1981 (booklet).

What Can She Be? A Computer Scientist, by Gloria and Ester Goldreich.
Lothrop, Lee and Shepard Co., 1979.

In this book the reader follows a computer scientist on her daily job.

Writing in the Computer Age, Word Processing Skills and Style for Every Writer, by A. Fluegelman and J. J. Hewes.
Anchor Press/Doubleday, Garden City, NY. 1983.

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The Addison Wesley Book of Apple Computer Software '83, by J. Stanton and J. Dickey.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA. 1983.

The Addison Wesley Book of Atari Computer Software '83, by J. Stanton and J. Dickey.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA. 1983.

Contains information on more than 500 programs.

1982-1983 Addison Wesley's Books about Computers
Addison-Wesley Publishing Co., Inc., Reading, MA.

A comprehensive catalogue of books for computer education.

1981-82 Audio-Visual Equipment Directory
The directory retails for $21 per copy if payment is sent with order, or $24 if billed. Send orders to: NAVA, 3150 Spring St., Fairfax, VA 22031.

The most recent edition of the National Audio-Visual Association's annual directory includes an enlarged section on microcomputers for A-V applications and a new section on computer-generated graphics equipment.

Audiovisual Market Place (1981 edition)
R. R. Bowker Co., N.Y.C.

Basic Basic-English Dictionary, by Noonan.
BMI Educational Systems, Dayton, Ohio.

For the Apple, TRS-80, and PET. An alphabetical listing of commonly used commands, statements, operators and special keys. Translates graphics.

BASIC Cookbook, by Tracton.
BMI Educational Services, Dayton, Ohio.

A dictionary of all basic statements, commands and functions.

1983 Classroom Computer News Directory of Educational Computing Resources
Intentional Educations, 341 Mt. Auburn St., Watertown, MA 02172.

Describes publications, associations, user groups, projects, funding, upcoming events, and educational opportunities.

BEST COPY AVAILABLE

Computer-Based Education. The Best of ERIC, by Keith A. Hall. June 1976-August 1980. ED 195 288, 96 pages. Available from: Syracuse Un. Printing Service, Syracuse, NY.

This bibliography contains annotations of reports, reviews, conference proceedings, other documents, and journal articles on computer based education (CBE), most of which were derived from a search of the Educational Resources Information Center (ERIC) system. Covering June 1976 through August 1980, this compilation serves as an update to two earlier papers - "The Best of ERIC: Recent Trends in Computer Assisted Instruction" (1973) and "Computer Assisted Instruction: The Best of ERIC 1973-May 1976." A brief introduction discusses instructional methods included in computer based education and explains the subject headings found in the bibliography: (1) historical references; (2) new technology, such as artificial intelligence and videodiscs; (3) new audiences, such as off-campus handicapped, or incarcerated learners; (4) various content area applications including fields such as English, health sciences, languages and social studies; (5) developmental efforts such as PLATO, ROCIT, and others concerned with teacher training, (6) basic research in computer assisted instruction, and (7) conference proceedings on computers in education. An author index is included as well as information for ordering ERIC documents.

Computer Dictionary for Everyone, by Donald Spencer. Charles Scribner Sons. 1979.

Should be a part of every reference library.

Dictionary/Microcomputer Terminology, by Horoeski. BMI Educational Systems, Dayton, Ohio.

Defines nearly 4,000 computer terms.

Education Products Information Exchange (EPIE). P.O. Box 620, Stony Brook, NY 11790. Comprehensive $100 subscription includes the EPIE Materials Report, EPIE Equipment Report, EPIE Gram for Materials, and EPIE Gram for Equipment.

The EPIE Reports. . . provide comprehensive evaluations. Several have been on microcomputer hardware and software. The EPIE Grams. . . are newsletters with information on how schools can evaluate curriculum materials and equipment.

Educational Software Directory; Apple II Edition Sterling Swift Publishing Co., 1600 Fortview Road, Austin, Texas, 78704. 1981.

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Evaluation of Educational Software: A Guide to Guides
Northeast Regional Exchange, 101 Mill Road, Chelmsford, MA 01824.

Provides evaluation formats and processes used by MicroSIFT, EPIE, MECC, and others.

Guideline to Microcomputer Courseware for Bilingual Education and Related Settings
National Clearinghouse for Bilingual Education, Rosslyn, VA. 1983.

Guidelines for Evaluating Computerized Instructional Materials, prepared by William P. Heck, Jerry Johnson, and Robert J. Kansky.
National Council of Teachers of Mathematics, 1906 Association Drive, Reston, VA 22091.

This 32-page booklet has information for those who are involved with buying or evaluating educational software.

A Guide to Computers in Education
Atari Inc., San Jose, CA. 1982.

Includes information on various applications of the computer in the classroom.

Harvard Directory of Schools Making Extensive Use of Microcomputers
A compendium of some 250 sites issued by the Gutman Library, Harvard University, Cambridge, Mass. 02138.

International Microcomputer Dictionary
Sybex, Inc., Berkeley, CA.

A pocket guide to more than 1,600 definitions for the most important terms, acronyms, and numbers in microcomputer jargon

A revised and expanded version of Microcomputer Lexicon, the reference also lists code numbers common in microcomputer talk. It notes more than 200 English computer terms and their equivalents in Danish, Dutch, French, German, Hungarian, Italian, Norwegian, Polish, Spanish, and Swedish. The dictionary also features a section on standards and specifications and notes addresses and phone numbers for suppliers of micro systems and components.

BEST COPY AVAILABLE

Microcomputer Buyer's Guide, by Tony Webster.
Hayden Book Co., Rochelle Park, NJ. 338 pages. 1981.

This buyer's guide to micros contains detailed information on microcomputers in general, several dozen software products, over 80 personal computers from 53 manufacturers, and several dozen peripherals.

Microcomputer Directory: Applications in Educational Settings
1982 edition. Harvard University, Gutman Library, Appian Way, Cambridge, MA 02138.

Describes projects utilizing microcomputers for instructional and administrative purposes at over 1,000 U.S. locations. Entries from elementary and secondary schools, computer camps, museums, prisons, alternative learning sites, colleges, and universities. Subjects included in index are networks, gifted and talented, vocational education, administration, remedial programs, library media centers, museums, science and math, in service programs for teachers.

Microcomputer Index
Microcomputer Information Services, 2646 El Camino Real, Box 247, Santa Clara, CA 95051.

The Index is published quarterly giving bibliographies, information on articles, columns, book reviews, hardware and software reviews.

Micro-SIFT
Clearinghouse for microcomputing in education, located at NWREL, 900 SW 6th Ave., Portland, Oregon 97204.

"MicroSIFT Evaluator's Guide", developed by the Computer Technology Program of the Northwest Regional Laboratory, is now available from International Council for Computers in Education (ICCE). This guide sets a new standard for evaluating instructional software. Contents include a summary of MicroSIFT's evaluation process, glossary, detailed description of all review components, review forms and sample reviews.

My Students Use Computers; Administrator's Guide, by Humro and Hunter
RMI Educational Systems, Dayton, Ohio.

For school personnel who plan to implement the use of computers in a K-12 program. Provides sequenced computer literacy objectives.

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Online Terminal Microcomputer Guide and Directory, 1982-83 Edition
Online, Inc., Weston, CT.

Claims to be the only source of terminal and micro information compiled specifically for libraries and information centers. The guide features how-to articles on choosing terminals and micro-computers, equipment specifications for some 200 print and video terminals, slave printers, and micro-computers, and lists of 1,500 sales and service offices. Optional updates to the guide will be available in November 1982 and 1983.

Practical Guide to Computers in Education, by P. Coburn, P. Kelman, N. Roberts, T. Snyder, D. Watt, C. Weiner.
Addison-Wesley Publishing Co., Inc., Menlo Park, CA. 1982.

Spanning all grade levels and all major subject areas, it is filled with practical tips, techniques, recommendations, strategies, resources, and scenarios.

Quality Courseware
Follett Library Book Co., Crystal Lake, IL.

A comprehensive catalog of courseware, management software, books, etc. with courseware evaluation checklists.

RICK (Resources in Computer Education)
Write to BRS, Inc., 1200 Rt. 7, Latham, NY 12110, for information.

A computerized data base for provision of information on software and other resources for computer education in elementary/secondary schools.

Small Computer Program Index
ALLM Books, Bushey, Watford, Hertz WD2 2JU, England.

A bimonthly guide to program listings in personal and small computer magazines and books from the United States, the United Kingdom, and several other countries. The index will include printed programs that can be run on microcomputers, concentrating on the needs of micro users at school, home, work, and colleges or universities. The index will cover current literature as it appears as well as past issues of micro-related publications.

Vanloves Educators Handbook and Software Directory
EMC Publishing, Changing Times Ed. Services, St. Paul, MN.

A sourcebook on Apple microcomputer information for educators. Lists more than 500 programs. Articles on administration, funding, and literacy are included.

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Van Loves 1983 Apple II/III Software Directory
EMC Publishing, Changing Times Ed. Services, St. Paul, MN.

Thousands of programs are listed and described. 1100 pages of information.

Webster's MICROCOMPUTER BUYER'S GUIDE
Computer Reference Guide Co., Los Angeles, CA. 326 pages. 1981.

Reviews in detail more than 150 microcomputer systems from over 50 major microcomputer suppliers, including some of the latest Japanese manufacturers. It is designed to aid both first time and experienced computer users in choosing a single-board microcomputer or micro-computer system to suit their application.

Webster's New World Compact Dictionary of Computer Terms
BMI Educational Systems, Dayton, Ohio.

More than 2,500 basic computer terms are presented.

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ORGANIZATIONS

The American Computer Science League (ACSL)
P.O. Box 2417A, Providence, RI 02906. (401) 33-1ACSL. Contact: Marc H. Brown, Director.

ASCL administers monthly computer science contests for junior and senior high school students, and end of year regional contests.

Association for Computing Machinery (ACM)
11 W. 42nd St., New York, NY 10036. (212) 869-7440

Local chapter and SIGs. Many publications. Education for Elementary and Secondary Students (order No. 812810, 1981, 92 pages). $7.00 for members. $10.00 for non-members can be purchased from ACM Order Dept., P.O. Box 64145, Baltimore, MD 21264.

Association for Development of Computer-Based Instructional Systems (ADCIS)
ADCIS Headquarters. Computer Center. Western Washington University, Bellingham, WA 98225. (206) 676-2860. Contact: Gordon Hayes, Executive Director.

Bimonthly newsletter and Journal of Computer-Based Instruction, free to members, special interest groups. Annual conference.

Association for Educational Communications and Technology (AECT)
1126 16th St. NW. Washington, D.C. 20036. (202) 466-4780.

Task force on microcomputers. ECT Journal and other publications.

Association for Educational Data Systems (AEDS)
1201 Sixteenth Street NW, Washington, D.C. 20036. (202) 822-7845.
Contact: Shirley Easterwood, Executive Secretary.

Three quarterly publications--Bulletin, Monitor, Journal, free to members.

International conventions, seminars, workshops, programming contest for students 7-12.

International Council for Computers in Education (ICCE)
Department of Computer and Information Science, University of Oregon, Eugene, OR 97403. (503) 686-4414. Contact: David Moursund.

The Computing Teacher, 9 issues per year, $16.50; also booklets.

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National Audio-Visual Association, The International Communications Industries Association (NAVA/ICIA).
3150 Spring St., Fairfax, VA 22031. (703) 273-7200.

NAVA/ICIA's newsletter offers information on funding for classroom computer use. Directory available on microcomputer technology.

National Educational Computer Conference (NECC)
University of Missouri, Computer Services, 305 Jesse Hall, Columbia, MI 65221. Contact: E. Michael Staman, NECC-82 General Chairman.

A distinguished steering committee plans annual meetings at which papers are delivered.

Northwest Council for Computer Education (NCCE)
Howard Bailey, Executive Secretary, c/o Computer Center, EOSC, La Grande, OR 97850.

The Computing Teacher, 9 issues per year, $15.00.

Puget Sound Association for Computers in Education (PSACE)
Dr. Charles Olson, SPU, MSLC #115, Seattle, WA 98119.

Society for Applied Learning Technology (SALT)
50 Culpepper Street, Warrenton, VA 22186. (703) 347-0055. Contact: Raymond G. Fox, President.

Quarterly newsletter free to members, a journal, and other publications.

Young Peoples Logo Association (YPLA)
P.O. Box 855067, Richardson, TX 75085. (214) 783-7548.

Local chapters and learning centers. Software exchange. Turtle News, $9.00 for students, $25.00 for adults.

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RESOURCE CENTERS

The Center for Children and Technology
Bank Street college, 610 W. 112th Street, New York, NY 10025. (212) 663-7200.

Research into educational technology usage.

Center for Research on Learning and Teaching (CRLT)
Karl Zinn, 109 E. Madison St., Ann Arbor, MI 48104. (313) 763-4410.

A source of innovative ideas for computers in education. Disseminates information through the Dataspan bank.

Computer Town, USA (CTUSA)
Friti Lareau, 1263 El Camino Real, P.O. Box E, Menlo Park, CA 94025. (415) 323-3111.

Model informal learning center. Newsletters avail[illegible] $25.00

Educational Testing Service (ETS)
Technology Laboratory, Rosedale Rd., Princeton, NJ 08541. (609) 921-9000.

Far West Laboratory for Educational Research and Development
Technology Learning Center, 1855 Folsom St., San Francisco, CA 94103. (415) 565-3021, (415) 565-3037 (bulletin board).

Bulletin board available. Workshops, seminars, newsletter available.

National Educational Computer Library
P.O. Box 293, 16 Main Street, New Milford, CT 06776. (206) 354-7760.

Resource center and clearinghouse. National Educational Review.

Northwest Regional Educational Laboratory (NWREL)
300 SW Sixth Ave., Portland, OR 97204. (503) 248-6800, (800) 547-6339.

MicroSIFT clearinghouse of software information.

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Technical Education Research Centers (TERC)
Computer Resource Center, 8 Eliot St., Cambridge, MA 02138. (617) 547-3890.

Newsletter, Hands On!, is available. (4 issues for $10.00.)

Washington's High Technology Educators' Network
(HI-TEN)

This network consists of four regional computer demonstration centers, one mini-center, five outreach centers and the Superintendent of Public Instruction which acts as a coordinating agency.

All centers offer technical assistance, teacher inservice training, and assistance in K-12 curriculum planning. In addition, the regional centers offer opportunity for preview of hardware, software, and related educational materials.

Regional Computer Demonstration Center, ESD 101
Mr. Al Bell, Director
Mr. Mike Maxson, Trainer
W. 1025 Indiana
Spokane, WA 99205
(509) 456-7683, Ext. 49
SCAN 545-7683, Ext. 50

Regional Computer Demonstration Center, ESD 105
Ms. Catherine Hardison, Director
Mr. Dick Nodlinski, Trainer
30 S. Second Ave.
Yakima, WA 98902
(509) 575-2885
SCAN 558-2885

Regional Computer Demonstration Center, ESD 112
Mr. Jon Nelson, Director
Ms. Judy Howard, Secretary-Specialist
1313 NE 134th St.
Vancouver, WA 98665
(206) 574-3215
SCAN 568-3125

Regional Computer Demonstration Center, ESD 189
Ms. Sue Hubler, Director
Mr. Larry Burtness, Trainer
803 South Spruce
Burlington, WA 98233
(206) 755-9110
SCAN 738-2140

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MINICENTER, ESD 121
Mr. George Luginbill
1410 S. 200th St.
Seattle, WA 98148
(206) 242-9400
SCAN 732-1011, Ext. 32

Outreach Center, ESD 113
Mr. Dick Barnhart
601 McPhee Rd. SW
Olympia, WA 98502
(206) 754-1683
SCAN 235-1683

Outreach Center, ESD 113
Mr. Fred Achberger
1303 Sylvan Way
Bremerton, WA 98310
(206) 373-5006

Outreach Center, ESD 123
Mr. Joe Huether
124 S. Fourth
Pasco, WA 99301
(509) 547-8441

Outreach Center, ESD 171
Ms. Myrna Jensen
Box 1847
Wenatchee, WA 98801
(509) 663-8741
SCAN 565-1436
Oly. 753-0208

Outreach Center
Dr. Pat McIntyre
Ms. Cheryl Blix
St. Martin's College
Lacey, WA 491-4700, Ext. 240
Ext. 309

SPI
Sue Collins, Supervisor
Cheryl Lemke, Specialist
Computer/Technology Ed. Programs
Old Capitol Building, FG-11
(206) 754-2053
SCAN 235-2053

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Periodicals

The Balance Sheet
5101 Madison Rd., Cincinnati, OH 45227.
Subscription--no cost (4 issues/year).

Byte
Byte Publications, 70 Main Street, Petersborough, NH 03458.
Subscription--$21.00/year.

Classroom Computer Learning
Pittman Learning, Inc., 19 Davis Dr., Belmont, CA 94002.
Subscription--$19.95/year (9 issues).

The Computing Teacher
Department of Computer and Information Service, University of Oregon, Eugene, OR 97403.
Subscription--9 issues/$16.50.

CRLA (Computers Reading and Language Arts)
P.O. Box 13247, Oakland, CA 94661.
Subscription--$14.00/4 issues for individuals, $18.00/4 issues for institutions.

Educational Computer Magazine
P.O. Box 535, Cupertino, CA 95015.
Subscription--$15.00/year (10 issues).

Educational Technology
140 Sylvan Ave., Engelwood Cliffs, NJ 07632.
Subscription--$49.00/year (12 issues).

Electronic Education
Electronic Communications, Inc., Suite 20, 1311 Executive Center Drive, Tallahasee, FL 32301.
Subscription--$18.00/year (9 issues).

Electronic Learning
Scholastic, Inc., 730 Broadway, New York, NY 10003.
Subscription--$19.00/year (8 issues).

Infoworld
375 Cochituate Road, Box 880, Farmington, MA 01701.
Subscription--$31.00/year (52 issues).

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The LOGO and Educational Computing Journal
Suite 219, 1320 Stony Brook Rd., Stony Brook, NY 11790.
Subscription--$20.00/year.

MicroSIFT News
Published by Northwest Regional Educational Laboratory. Please contact your local ESD or SPI for copies, addresses can be found beginning on page 85.

Microcomputer Index
Microcomputer Information Services. 2646 El Camino Rd.; Box 247, Santa Clara, CA 95051.
Subscription--$38.00/year.

Microzine, Scholastic, Inc. (magazine on a disk)
P.O. Box 645, Lyndhurst, NJ 07071-9986.
Subscription--$149.00/year (6 issues).

Small Computers in Libraries
SCIL, Graduate Library School, University of Arizona, 1515 E. First St., Tucson, AZ 85719.
Subscription--$20.00/year.

School Microware: A Directory of Educational Software
(Over 500 programs/packages for Apple, PET, TRS-80.)
Dresden Associates, P.O. Box 246, Dresden, ME 04342.
Subscription--$14.00.

Teaching and Computers
Scholastic, Inc., 730 Broadway, New York, NY 10003.
Subscription--$19.00/year (8 issues).

T.H.E. Journal
P.O. Box 17239, Irvine, CA 92713.
Free to qualified schools.

Window, Inc. (magazine on a disk)
469 Pleasant Street, Watertown, MA 02172.
Subscription--$120.00/5 issues.

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DR. FRANK B. BROUILLET
Superintendent of Public Instruction
Old Capitol Building, FG-11, Olympia, WA 98504

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